

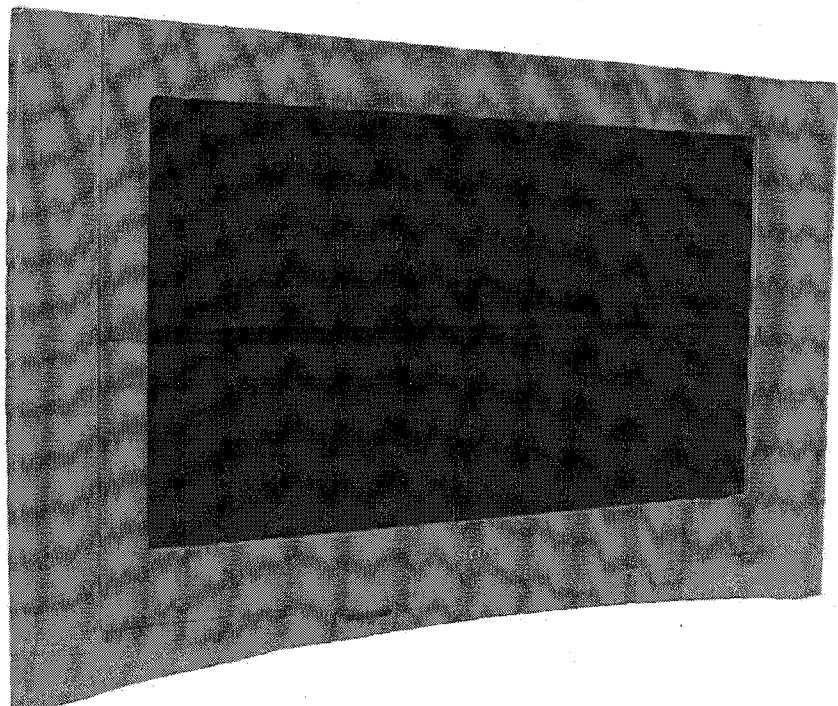
Self Diagnosis
Supported model

SERVICE MANUAL

AE-6BA CHASSIS

MODEL	COMMANDER	DEST	CHASSIS NO.	MODEL	COMMANDER	DEST	CHASSIS NO.
KV-28FQ86B RM-945	FR		SCC-Q83T-A	KV-32FQ86B RM-945	FR		SCC-Q83U-A
KV-28FQ86E RM-945	ESP		SCC-Q81W-A	KV-32FQ86E RM-945	ESP		SCC-Q81X-A
				KV-32FQ86K RM-945	OIRT		SCC-Q82M-A
				KV-32FQ86U RM-945	UK		SCC-Q84T-A

FD Trinitron



RM-945

TRINITRON® COLOR TV
SONY®

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CAUTION
SHORT CIRCUIT THE ANODE OF THE PICTURE TUBE AND THE ANODE CAP TO THE METAL CHASSIS, CRT SHIELD, OR THE CARBON PAINTED ON THE CRT, AFTER REMOVAL OF THE ANODE CAP.

WARNING !!

AN ISOLATION TRANSFORMER SHOULD BE USED DURING ANY SERVICE WORK TO AVOID POSSIBLE SHOCK HAZARD DUE TO LIVE CHASSIS, THE CHASSIS OF THIS RECEIVER IS DIRECTLY CONNECTED TO THE POWER LINE.

SAFETY-RELATED COMPONENT WARNING !!

COMPONENTS IDENTIFIED BY SHADING AND MARKED Δ ON THE SCHEMATIC DIAGRAMS, EXPLODED VIEWS AND IN THE PARTS LIST ARE CRITICAL FOR SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

**APRES AVOIR DECONNECTE LE CAP DE L'ANODE,
COURT-CIRCUITER L'ANODE DU TUBE CATHODIQUE ET
CELUI DE L'ANODE DU CAP AU CHASSIS METALLIQUE DE
L'APPAREIL, OU AU COUCHE DE CARBONE PEINT SUR LE
TUBE CATHODIQUE OU AU BLINDAGE DU TUBE
CATHODIQUE.**

ATTENTION !!

**AFIN D'EVITER TOUT RISQUE D'ELECTROCUTION
PROVENANT D'UN CHASSIS SOUS TENSION, UN
TRANSFORMATEUR D'ISOLEMENT DOIT ETRE UTILISE LORS
DE TOUT DEPANNAGE LE CHASSIS DE CE RECEPTEUR EST
DIRECTEMENT RACCORDE A L'ALIMENTATION SECTEUR.**

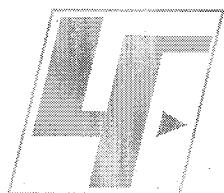
**ATTENTION AUX COMPOSANTS RELATIFS A
LA SECURITE !!**

**LES COMPOSANTS IDENTIFIES PAR UNE TRAME ET PAR UNE
MARQUE Δ SUR LES SCHEMAS DE PRINCIPE, LES VUES
EXPLOSEES ET LES LISTES DE PIECES SONT D'UNE IMPOR-
TANCE CRITIQUE POUR LA SECURITE DU FONCTIONNEMENT,
NE LES REMPLACER QUE PAR DES COMPOSANTS SONY DONT
LE NUMERO DE PIECE EST INDIQUE DANS LE PRESENT
MANUEL OU DANS DES SUPPLEMENTS PUBLIES PAR SONY.**

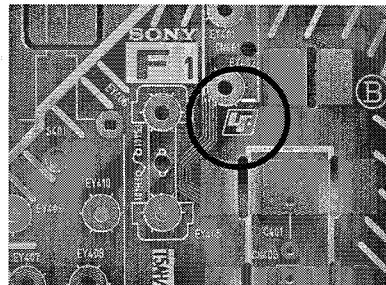
CAUTION

Lead Free Soldered Boards

The circuit boards listed below [Table 1] used in these models may have been processed using Lead Free Solder. The boards are identified by the LF logo located close to the board designation e.g. F1, H1 etc [see examples]. The servicing of these boards requires special precautions to be taken as outlined below.



example 1



example 2

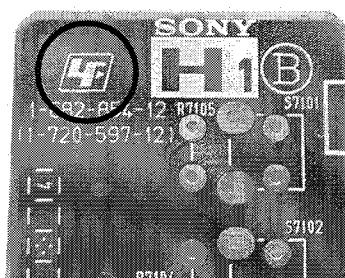


Table 1

Board	Function
A	Audio,Deflection,Tuner,Regulators, J,B Interface
B	Backend,Scanrate,LVDS,A_Interface
C	R,G,B Out
D	Deflection
D2	Smart Mode Deflection
F1	Power Switch/Fuse/SIRCS/Standby LED
G	Power Supply
H1	Front AV Input/Headphone and Control Switches
J	AV Scart I/O Switching and Sockets
VM	Velocity Modulation

It is strongly recommended to use Lead Free Solder material in order to guarantee optimal quality of new solder joints. Lead Free Solder is available under the following part numbers :

Partnumber	Diameter	Remarks
7-640-005-19	0.3mm	0.25Kg
7-640-005-20	0.4mm	0.50Kg
7-640-005-21	0.5mm	0.50Kg
7-640-005-22	0.6mm	0.25Kg
7-640-005-23	0.8mm	1.00Kg
7-640-005-24	1.0mm	1.00Kg
7-640-005-25	1.2mm	1.00Kg
7-640-005-26	1.6mm	1.00Kg

Due to the higher melting point of Lead Free Solder the soldering iron tip temperature needs to be set to 370 degrees centigrade. This requires soldering equipment capable of accurate temperature control coupled with a good heat recovery characteristics.

For more information on the use of Lead Free Solder, please refer to <http://www.sony-training.com>

ITEM MODEL	Television System	Stereo System	Channel Coverage	Color System
B	B/G/H, D/K, I, L	GERMAN/NICAM Stereo	VHF : E2-E12, R1-R12, S01-S03, F02-F10 , B-Q UHF : E21-E69, F21-F69, B21-B69, R21-R69 CABLE TV : S01-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
E	B/G/H, D/K	GERMAN/NICAM Stereo	VHF : E2-E12, R1-R12, S01-S03, UHF : E21-E69, R21-R69 CABLE TV : S01-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
K	B/G/H, D/K	GERMAN/NICAM Stereo	VHF : E2-E12, R1-R12 , S01-S03 UHF : E21-E69, R21-R69 CABLE TV : S01-S20 HYPER : S21-S41	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)
U	I	NICAM Stereo	I UHF : B21-B69	PAL, SECAM NTSC4.43, NTSC3.58 (VIDEO IN)

Picture Tube	Flat Display FD Trinitron WIDE: Approx 71 cm (28 inches) (KV-28FQ86) Approx 82 cm (32 inches) (KV-32FQ86)	Sound output	
		Right and Left speaker	2x20W (Music Power) 2x10W (RMS)
Input/Output Terminals [REAR]			Sub Woofer 1x30W (Music Power) 1x15W (RMS)
1: 21-pin Euro connector (CENELEC standard)	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals.	Power Requirements	220 - 240V
2: 21-pin Euro connector	Inputs for Audio and Video signals. Inputs for RGB. Outputs of TV Video and Audio signals. (Monitor Out)	Power Consumption	130W/0.5W
3: 21-pin Euro connector	Inputs for Audio and Video signals. Inputs for S Video. Outputs of TV Video and Audio signals. (selectable), Smartlink Interface	Dimensions	Approx 789x533x510mm (KV-28FQ86) Approx 910x586x586mm (KV-32FQ86)
Phono Jacks	Output Connectors variable for Audio Signals	Weight	Approx 45kg (KV-28FQ86) Approx 64kg (KV-32FQ86)
Input/Output Terminals [FRONT]			Supplied Accessories RM-945 Remote Commander (1) IEC designated R6 battery (2)
Headphone jack	stereo mini jack	Other Features	100 Hz picture, Digital Plus, NexTVView, Teletext, Smartlink, BBE Digital, Dolby Virtual, PAP, ACI
Audio inputs	phono jacks	Power requirements	3V dc 2 batteries IEC designation R6 (size AA)
Video inputs	phono jacks		
S Video input	4 pin DIN		
Design and specifications are subject to change without notice.			

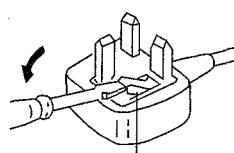
Item	Model Name	KV-28FQ86B	KV-28FQ86E	KV-32FQ86B	KV-32FQ86E	KV-32FQ86K	KV-32FQ86U
Pal Comb		OFF	OFF	OFF	OFF	OFF	OFF
PAP		ON	ON	ON	ON	ON	ON
RGB Priority		ON	ON	ON	ON	ON	ON
Woofer Box		ON	ON	ON	ON	ON	ON
Scart 1		ON	ON	ON	ON	ON	ON
Scart 2		ON	ON	ON	ON	ON	ON
Scart 3		ON	ON	ON	ON	ON	ON
Front in (4)		ON	ON	ON	ON	ON	ON
Projector		OFF	OFF	OFF	OFF	OFF	OFF
Norm B/G		ON	ON	ON	ON	ON	OFF
Norm I		ON	OFF	ON	OFF	OFF	ON
Norm D/K		ON	ON	ON	ON	ON	OFF
Norm AUS		OFF	OFF	OFF	OFF	OFF	OFF
Norm L		ON	OFF	ON	OFF	OFF	OFF
Norm SAT		OFF	OFF	OFF	OFF	OFF	OFF
Norm M		OFF	OFF	OFF	OFF	OFF	OFF
Teletext		ON	ON	ON	ON	ON	ON
Nicam Stereo		ON	ON	ON	ON	ON	ON

WARNING (UK Models only)

The flexible mains lead is supplied connected to a **B.S. 1363** fused plug having a fuse of **5 AMP** rating. Should the fuse need to be replaced, use a **5AMP FUSE** approved by ASTA to **BS 1362**, ie one that carries the  mark.

IF THE PLUG SUPPLIED WITH THIS APPLIANCE IS NOT SUITABLE FOR THE OUTLET SOCKETS IN YOUR HOME, IT SHOULD BE CUT OFF AND AN APPROPRIATE PLUG FITTED. THE PLUG SEVERED FROM THE MAINS LEAD MUST BE DESTROYED AS A PLUG WITH BARED WIRES IS DANGEROUS IF ENGAGED IN A LIVE SOCKET.

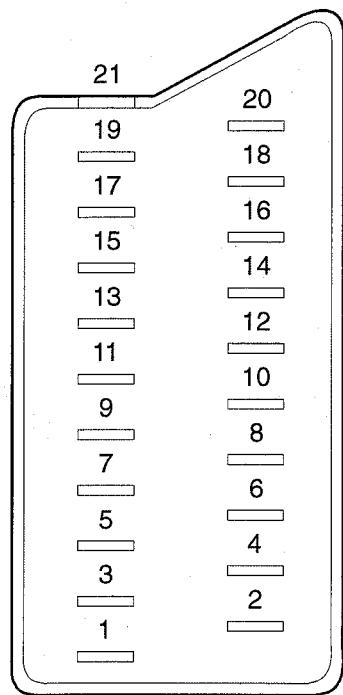
When an alternative type of plug is used, it should be fitted with a **5 AMP FUSE**, otherwise the circuit should be protected by a **5AMP FUSE** at the distribution board.



How to replace the fuse.
Open the fuse compartment with a screwdriver blade and replace the fuse.

FUSE

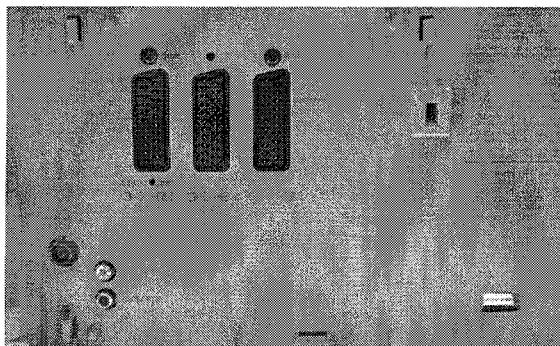
21 pin connector



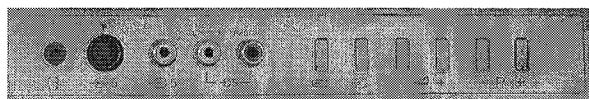
Pin No	1	2	3	Signal	Signal level
1	○	○	○	Audio output B (right)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
2	○	○	○	Audio input B (right)	Standard level : 0.5V rms Output impedance : More than 10kohm*
3	○	○	○	Audio output A (left)	Standard level : 0.5V rms Output impedance : Less than 1kohm*
4	○	○	○	Ground (audio)	
5	○	○	○	Ground (blue)	
6	○	○	○	Audio input A (left)	Standard level : 0.5V rms Output impedance : More than 10kohm*
7	○	●	●	Blue input	0.7 +/- 3dB, 75 ohms positive
8	○	○	○	Function select (AV control)	High state (9.5-12V) : Part mode Low state (0-2V) : TV mode Input impedance : More than 10K ohms Input capacitance : Less than 2nF
9	○	○	○	Ground (green)	
10	○	○	○	Open	
11	○	●	●	Green	Green signal : 0.7 +/- 3dB, 75 ohms, positive
12	○	○	○	Open	
13	○	○	○	Ground (red)	
14	○	○	○	Ground (blanking)	
15	○	-	-	Red input	0.7 +/- 3dB, 75 ohms, positive
	-	○	○	(S signal Chroma input)	0.3 +/- 3dB, 75 ohms, positive
16	○	●	●	Blanking input (Ys signal)	High state (1-3V) Low state (0-0.4V) Input impedance : 75 ohms
17	○	○	○	Ground (video output)	
18	○	○	○	Ground (video input)	
19	○	○	○	Video output	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
20	○	-	-	Video input	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
	-	○	○	Video input Y (S signal)	1V +/- 3dB, 75ohms, positive sync 0.3V (-3+10dB)
21	○	○	○	Common ground (plug, shield)	

○ Connected ● Not Connected (open) * at 20Hz - 20kHz

Rear Connection Panel



Front Connection Panel



S-Video socket

S-Video socket pin configuration		
Pin No	Signal	Signal Level
1	Ground	-
2	Ground	-
3	Y (S signal) input	1V +/- 3dB 75ohm, positive Sync. 0.3V -3 +10dB
4	C (S signal) input	0.3V +/- 3dB 75ohm, positive Sync.

AE-6BA SELF DIAGNOSTIC SOFTWARE

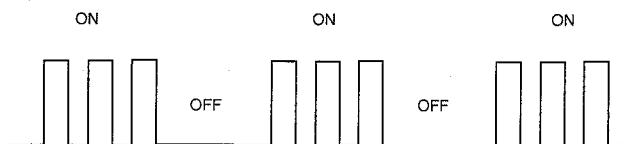
The identification of errors within the AE-6BA chassis is triggered in one of two ways :- 1: Busy or 2: Device failure to respond to IIC. In the event of one of these situations arising the software will first try to release the bus if busy (Failure to do so will report with a continuous flashing LED) and then communicate with each device in turn to establish if a device is faulty. If a device is found to be faulty the relevant device number will be displayed through the LED (Series of flashes which must be counted) See table 1, non fatal errors are reported using this method. Each time the software detects an error it is stored within the NVM. See Table 2.

Table 1

Error Message	LED Code
No error	00
Reserved	01
OCP (Over Current Protection)	02
Over Voltage Protection	03
No Vertical Sync	04
IKR Error at power on	05
IIC bus clock and/or data lines low at power on	06
NVM no IIC bus acknowledge at power on	07
Horizontal Protection	08
Tuner no acknowledge at power on	09
Sound Processor Error	10
Reserved	11
Scanrate Error	12
DAC Error	13
Backend Error	14
Dynamic Convergence Error	15
PIP Error	16

Flash Timing Example : e.g. error number 3

StBy LED



How to enter into Table 2

1. Turn on the main power switch of the TV set.
2. Program Remote Commander for Operation in Service Mode. [See Page 22].
3. Press 'AUX/VIDEO' 'AUX/VIDEO' > 'MENU' on the Remote Commander.
4. Using the Remote Commander, Scroll to the 'Error' item using the down arrow key, then press the right arrow key.
5. The following table will be displayed indicating the error count.

Table 2

Error monitor	
WORKING TIME:	(Hours:Minutes) 82:33
Error counters:	
E02: OCP	0
E03: OVP	0
E04: NO V SYNC	0
E05: IKR	0
E06: IIC	0
E07: NVM	0
E08: H PROT	0
E09: TUNER	0
E10: SOUND	0
E11: 9 VOLTS	0
E12: SCANRATE	0
E13: 3DCOMB	0
E14: BACKEND	0
E15: DYNCON	0
E16: HIGH VOLTAGE	0
E17: AVSWITCH	0
E18: CHROMA DEC	0
E19: FRCA	0
E20: PJ ENG	0
E21: DAC	0
E24: SPEAKER PROT	0
E25: MEMORY STICK	0

Note: To clear the error count data press '80' on the Remote commander.

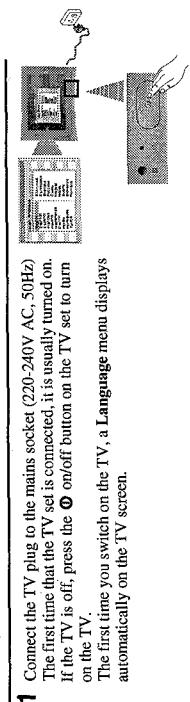
SECTION 1 GENERAL

The operating instructions mentioned here are partial abstracts from the 'Operating Instruction Manual'. The page numbers of the 'Operating Instruction Manual' remain as in the manual.

Switching On the TV and Automatically Tuning

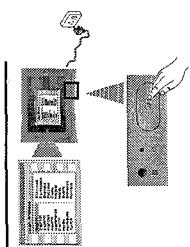
① The first time you switch on your TV, a sequence of menu screens appear on the TV enabling you to: 1) choose the language of the menu screen, 2) adjust the picture slant, 3) check how to connect optional equipment to your TV, 4) search and store all available channels (TV Broadcast) and 5) change the order in which the channels (TV Broadcast) appear on the screen.

However, if you need to change any of these settings at a later date, you can do so by selecting the appropriate option in the  (Set Up menu) or by pressing the Auto Start Up Button  on the TV set.



1 Connect the TV plug to the mains socket (220-240V AC, 50Hz). The first time that the TV set is connected, it is usually turned on. If the TV is off, press the  on/off button on the TV set to turn on the TV.

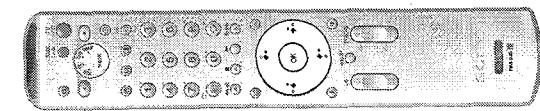
The first time you switch on the TV, a Language menu displays automatically on the TV screen.



2 Press the , , , or  buttons on the remote control to select your language, then press the  button to confirm your selection. From now on all the menus will appear in your chosen language.

3 Because of the earth's magnetism, the picture might slant. The Picture Rotation menu allows you to correct the picture slant if it is necessary.

- a) If it is not necessary, press  to select Not necessary.
- b) If it is necessary, press  or  to select Adjust now, then press  and correct any slant of the picture between -5 and +5 by pressing  or . Finally press  to store.



4 A diagram will appear showing you how to connect a wide range of equipment to your TV set. Follow the instructions and finally press the  button to remove the diagram and continue the automatic process.

 After the automatic tuning process has finished and any optional equipment has been connected, we recommend you follow the instructions explained on the section "Connection Guide" on page 15 to get the optimum settings related to the optional equipment.

5 The Auto Tuning menu appears on the screen. Press the  button to select Yes.

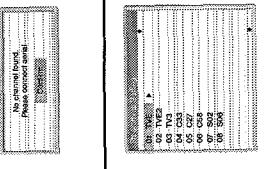


6 The TV starts to automatically search and store all available broadcast channels for you.



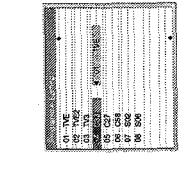
 This procedure could take some minutes. Please be patient and do not press any buttons, otherwise automatic tuning will not be completed.

7 In some countries the TV Broadcaster installs the channels automatically (ACI system). In this case, the TV Broadcaster sends a menu in which you can select your city by pressing the  or  button and  to store the channels.



 If no channels were found during the auto tune process, a message appears automatically on the screen asking you to connect the aerial. Check the aerial connection (refer to page 7). Press the  button to restart the auto tuning process.

8 Press the  to remove the menu from the screen



 1 Press the  or  button to select the programme number with the channel (TV Broadcast) you wish to move. Press the .

2 Press the  or  button to select the new programme number position for your selected channel (TV Broadcast). Press the  to store.

3 Repeat steps b) 1 and b) 2 if you wish to change the order of the other channels.

continued...

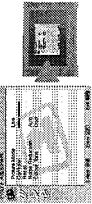
 Your TV is now ready for use

Introducing and Using the Menu System

1 Your TV uses an On-Screen menu system to guide you through the operations. Use the following buttons on the Remote Control to operate the menu system:



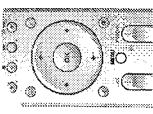
1 To switch on the menu screens:



Press the MENU button to switch the first level menu on.

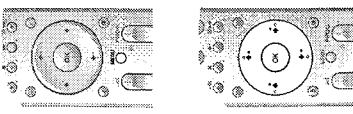
2 To navigate through the menus:

- To highlight and select the desired menu or option, press **↓** or **↑**.
- To enter the selected menu or option, press **OK** or **→**.
- To return to the last menu or option, press **OK** or **←**.
- To alter the settings of your selected option, press **↓/↑/←/→** or **OK**.
- To confirm and store your selection, press **OK**.



3 To switch off the menu screens:

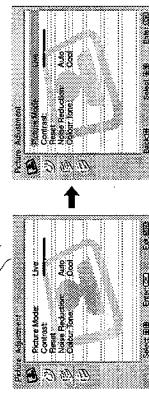
Press the MENU button to remove the menu from the screen.



The Picture Adjustment Menu

1 The "Picture Adjustment" menu allows you to alter the picture settings.

To do this:
Press the MENU button and then press **OK** to enter this menu. Next press **↓** or **↑** to select the desired option and press **OK**. Finally read the instructions below on how to operate each option.



Picture Mode This option allows you to customise the Picture Mode based on the programme you are watching. After selecting this option press **OK**. Next press **↓** or **↑** repeatedly to select:

Personal (for individual settings),
Live (for live broadcast programmes, DVD and Digital Set Top Box receivers)

Movie (for films).
Once you have selected your desired option, press **OK** to store.

1 "Brightness", "Colour" and "Sharpness" level of "Live" and "Movie" mode are fixed in the factory to get the best picture quality.

Contrast Press **↓** or **↑** to reduce or enhance picture contrast. Next press **OK** to store.

Brightness Press **↓** or **↑** to darken or brighten the picture. Next press **OK** to store.

Colour Press **↓** or **↑** to decrease or to increase color intensity. Next press **OK** to store.

Hue Press **↓** or **↑** to decrease or to increase the green tones. Next press **OK** to store.

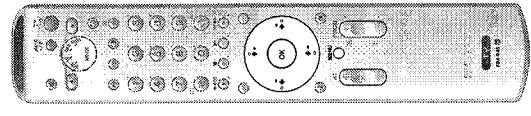
Sharpness Press **↓** or **↑** to soften or to sharpen the picture. Next press **OK** to store.

Reset Press **OK** to reset the picture to the factory preset levels.

Noise Reduction This option is set to **Auto** to automatically reduce the snowy picture that may be visible in the broadcast signal. However, it can be modified by pressing **↓** or **↑** to select **Off**, **Low**, **Mid** or **High**. Finally press **OK** to store.

Colour Tone This option allows you to alter the tint of the picture. After selecting this option press **↓**. Next press **↓** or **↑** repeatedly to select: **Warm** (gives the white colours a red tint), **Normal** (gives the white colours a neutral tint), **Cold** (gives the white colours a blue tint). Finally press **OK** to store.

GB



② The Sound Adjustment Menu

① The "Sound Adjustment" menu allows you to alter the sound settings.

To do this:

Press the MENU button and press **↓** to select **②**, then press OK to enter this menu. Next press **↓** or **↑** to select the desired option and press OK. Finally read the instructions below on how to operate each option.

This option allows you to customise the Sound Effect. After selecting this option press OK. Next press **↓** or **↑** repeatedly to select:

Off (Flat response).
Natural (Enhances clarity, detail and presence of sound by using "BBE High Definition Sound system"**).
Dynamic ("BBE High Definition Sound system"** intensifies clarity and presence of sound for better intelligibility and musical realism).
Dolby** (Dolby Virtual, simulates the sound effect of "Dolby Surround Pro Virtual Logic").

Once you have selected your desired option, press OK to store.

Treble Press **↓** or **↑** to decrease higher-frequency sounds. Next press OK to store.

Bass Press **↓** or **↑** to decrease or to increase the lower-frequency sounds. Next press OK to store.

Balance Press **↓** or **↑** to emphasise the left or the right speaker. Next press OK to store.

Reset Press OK to reset the sound to the factory preset levels. Next press OK to store.

Dual Sound

- For a Stereo broadcast:
 Press **↓** or **↑** to select Stereo or Mono. Next press OK to store.
- For a bilingual broadcast:
 Press **↓** or **↑** to select Mono (for mono channel if available), A (for channel 1) or B (for channel 2). Next press OK to store.

PAP (PICTURE AND PICTURE)

① PAP divides the screen into two to watch two pictures in format 4:3 simultaneously.

Switching PAP on and off

- 1 Press **②** to display PAP.
- ① One of the screens will be framed to indicate that this is the active screen. It means that when you want to select the PAP source, you will be doing it in the active screen.
- 2 Press **②** again to remove PAP.

① On the screen a banner appears guiding you on how to operate PAP. This banner will disappear after some seconds but it can always be displayed again by pressing the **②** button.

Changing the active screen

① This is only possible if the Media Selector is set to TV.

To change the active screen (framed), press the **↓** or **↑** buttons.

Selecting PAP source

- 1 Selecting a TV channel:
 Press the **↓** button to select the left screen as the active screen. Next press the number buttons or PROG +/- to select a TV channel.
- ① Video input signals can not be displayed on the left screen.

② Selecting an input source:
 Press the **↓** button to select the right screen as the active screen. Next press repeatedly the **②** button to show the input signal of the connected equipment on right screen of the TV. For more details on which input symbol you wish to choose, please see section "Viewing pictures from equipment connected to the TV" on page 23.

① RF signal (TV broadcast channels) can not be displayed on the right screen.

Selecting the sound

The sound of the active screen (framed) always comes from the TV speakers. Besides that, you can listen to the active screen as well as the non active screen via headphones.

To do this:

With the PAP switched on, refer to the section "The Sound Adjustment Menu", select "Headphones Set Up" and set the option "② PAP Sound" according your preference. For details see page 13.

① In PAP (picture and picture) mode, the output from the Start **②**-**②** is fixed to the right picture.

Teletext

Teletext is an information service transmitted by most TV stations. The index page of the teletext service (usually page 100) gives you information on how to use the service. To operate teletext, use the remote control buttons as indicated below.

A Teletext errors may occur if you use a channel (TV Broadcast) with a weak signal.

To switch on Teletext:

- 1 Select the broadcast channel which carries the teletext service you wish to view.
- 2 Press the **TEXT** button once to enter Picture and Text (P&T) mode. The screen is divided into two with the Text display on the left and the TV channel in the bottom right corner.
- 3 If you wish to view the Text in full screen mode, press the **TEXT** button a second time.

To select a Teletext page:

Input the 3 digit page number, using the numbered buttons.
 • If you make a mistake, retype the correct page number.
 • If the counter on the screen continues searching, it is because the page is not available. If this is the case, input another page number.

To access the next or preceding page:
 Press **PROG +** (■) or **PROG -** (■).

To freeze a teletext page:

Press **FREEZE** button. Press again to cancel the freeze.

To reveal concealed information (e.g. answer to a quiz):

Press **INFO** button. Press again to conceal the information.

To select a sub page:

A teletext page may consist of several sub pages. In this case, one or more arrows appear next to the page number and an information box is displayed at the bottom of the screen showing the number of sub pages contained on this page. As soon as sub pages are available, they start to automatically appear. If you want to stop the show and select your desired sub page, press **▼** or **►** repeatedly.

To Switch Off Teletext:

Press **TEXT** button.

Fastext

Fastext service lets you access Teletext pages with one button push. When you are in Teletext mode and Fastext is broadcast, a colour coded menu appears at the bottom of the teletext page. Press the appropriate coloured button (red, green, yellow or blue) to access the page corresponding to your menu choice.

Remote Control Configuration for VCR or DVD

A In its default condition this remote control will operate the basic functions of this Sony TV, Sony DVDs and most Sony VCRs. To control VCRs and DVDs of other manufacturers (and some Sony VCR models), the remote control needs to be configured.

To do this:

A Before you start, look up the 3 digit code for your brand of DVD or VCR from the list below.
 On those brands that have more than one code, enter the first code number.

• Sony will endeavour to update the software according to market changes. Therefore, please refer to the code table included with the remote control for latest code set.

• A small label is added inside the battery door to allow you to record your brand codes.

1 Press and hold the **→** button of the remote control for approximately 6 seconds until the green DVD and VCR light of the Media Selector start flashing (see fig. 1).

2 While the VCR and DVD lights are flashing, enter all three digits of buttons for your brand of VCR or DVD (see the list below) using the **num** buttons on the remote control (see fig. 2).

3 If your selected code is entered correctly, the VCR or DVD green light (according to your selection) will be lit momentarily (see fig. 3). Otherwise repeat all the above steps.

4 Turn on your VCR or DVD and check that the main functions work.

A • If your device is not working or some of the functions do not work please check that you entered the correct code set or try the next code listed against the brand.

• Not all brands are covered and not all models of every brand may be covered.

4 Always remember to press the **→** or **←** button until the green light illuminates according to the equipment you want to operate with this remote control: **VCR**, **TV** or **DVD**.

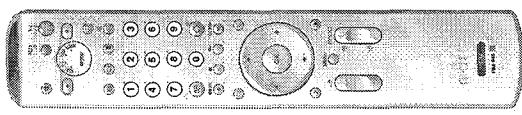


fig. 1

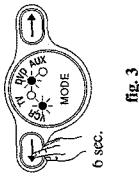


fig. 2



fig. 3

VCR Brand List		DVD Brand List	
Brand	Code	Brand	Code
SONY (VHS)	301, 302, 303, 308, 309, 362	SONY	001, 029, 030, 036, 037, 038, 039, 040,
SONY (BETA)	303, 307, 310		041, 042, 043, 044, 053, 054, 055
SONY (DV)	304, 305, 306	AIWA	021
AIWA	325, 331, 351	AKAI	032
AKAI	326, 329, 330	DENON	018, 027, 029, 032
DAEWOO	342, 343	GRUNDIG	009, 028, 023, 024, 016, 003
GRUNDIG	358, 355, 360, 361, 320, 351, 336	HITACHI	025, 026, 015, 004, 035
HITACHI	327, 333, 334	JVC	006, 017
JVC	314, 315, 322, 344, 352, 353, 354, 348, 349	KENWOOD	008
LG	332, 338	LG	015, 014, 034
LOEWE	358, 385, 360, 361, 320, 351	LOEWE	009, 028, 023, 024, 016, 003
MATSUI	356, 357	MATSUI	013, 016
ORION	328	ONKYO	022, 033
PANASONIC	321, 323	PANASONIC	018, 027, 020, 002, 045, 046, 047
PHILIPS	311, 312, 313, 316, 317, 318, 358, 359,	PHILIPS	009, 028, 023, 024, 016, 003, 031
	363, 364	PIONEER	004, 050, 051, 052
SAMSUNG	339, 340, 341, 345	SAMSUNG	011, 014
SANTO	335, 336	SANTO	007
SHARP	324	SHARP	019, 027
THOMSON	319, 350, 365	THOMSON	012
TOSHIBA	337	TOSHIBA	018, 027, 020, 002

Technical Specifications

TV system:

I. PAL

Colour system:
SECAM, NTSC 3.58, 4.43 (only
Video In)

Channel Coverage:
UHF: B21-B69

Picture Tube:

Flat Display FD Trinitron WIDE:
KV-28FQ86U: 28" (approx. 71cm.
measured diagonally)
KV-32FQ86U: 32" (approx. 82cm.
measured diagonally)

Sound Output:

2 x 20 W (music power)
2 x 10 W (RMS)
Woofe...

30 W (music power)

15 W (RMS)

Power Consumption:

KV-28FQ86U: 130 W

KV-32FQ86U: 130 W

Standby Power Consumption:

0.5 W

Dimensions (w x h x d) :

KV-28FQ86U:

approx. 789 x 333 x 510 mm.

KV-32FQ86U:

approx. 910 x 586 x 586 mm.

Weight:

KV-28FQ86U: approx. 45 Kg.

KV-32FQ86U: approx. 64 Kg.

Accessories supplied:

- 1 Remote Control (RM-945)
- 2 Batteries (IEC designated,
AA size)
- C- audio outputs (Left/Right)
- phono jacks

Front Terminals

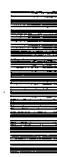
- 4 S Video input - 4 pin
DIN.
- 4 video input - phono
jack.
- 4 audio input - phono
jacks.
- headphones jack.
- Other features:
• 100 Hz picture, Digital Plus,
Teletext, Fastext, TOText.
• NextView.
• SmartLink.
• TV system autodetection.
• Dolby Virtual.
• BBE Digital.
• NICAM.
• PAP.
• ACI (Auto Channel
Installation).

Optional accessories:

- Stand especially designed for this
TV
KV-28FQ86U: SU-28FQ3.
KV-32FQ86U: SU-32FQ3.

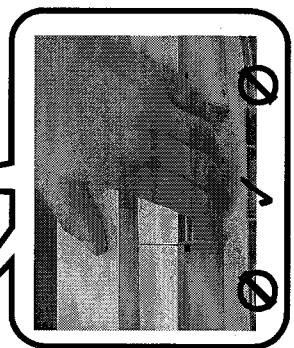
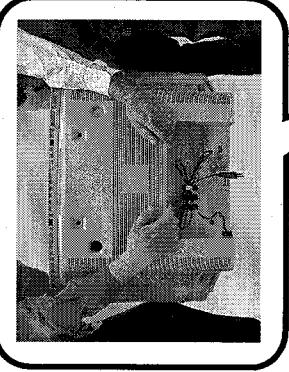
Design and specifications are subject to change without notice.

Lifting the TV Set



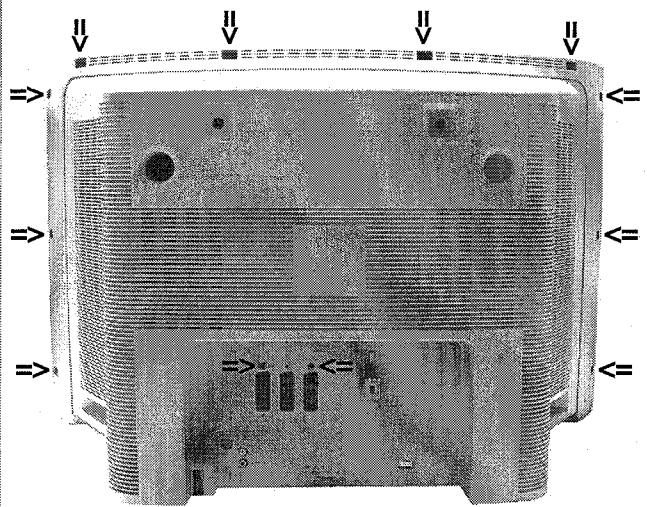
2067/8201

2-067-792-01



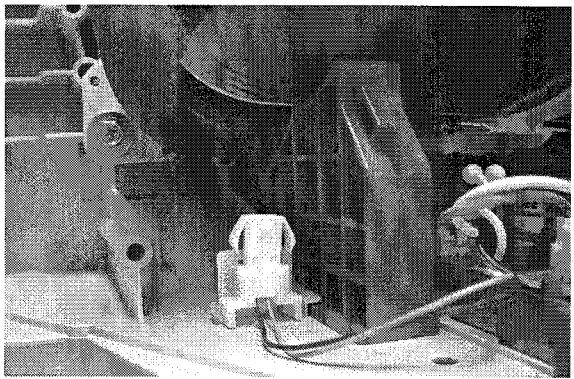
SECTION 2 DISASSEMBLY

2-1. Rear Cover Removal



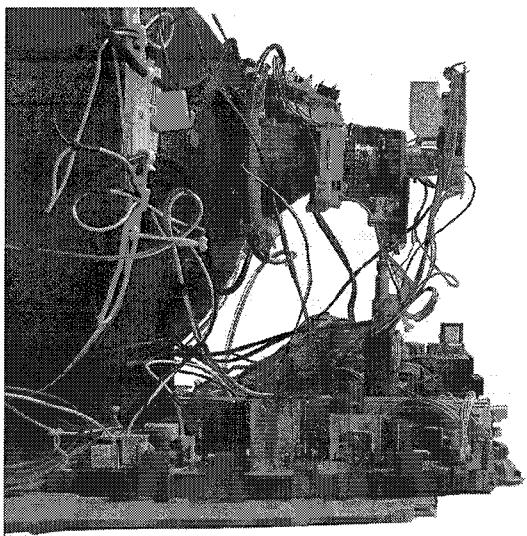
Remove the rear cover fixing screws indicated and pull the rear cover backwards away from the set. Take care when removing the rear cover not to damage the speaker cable [Disconnect the speaker connector] a speaker is fitted inside the rear cover.

2-2. Speaker Connector Disconnection

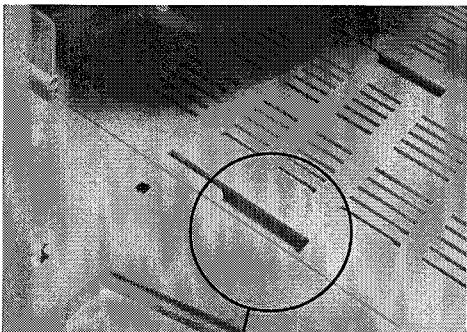


Before completely removing the rear cover disconnect the speaker connector which is located on the inside of the set.

2-3. Chassis Removal and Refitting

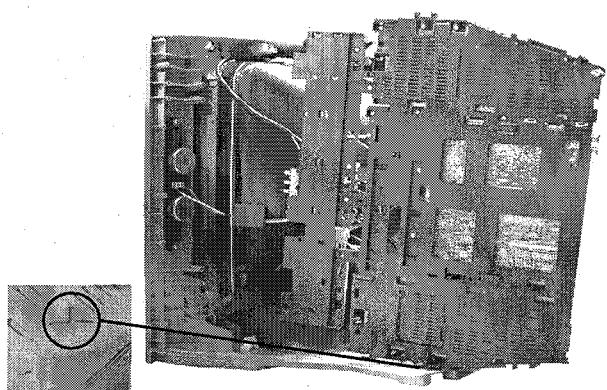


To remove lift the main bracket rear slightly and slide the chassis away from the bezel net. Ensure that the interconnecting leads are released from their purse locks to prevent damage being caused.



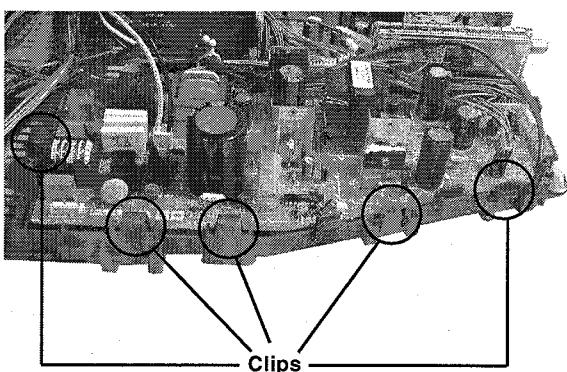
When refitting the chassis ensure that the main bracket is located in the bezel guide slots before sliding the chassis forwards. Refit the inter-connecting leads in their respective purse locks.

2-4. Service Position



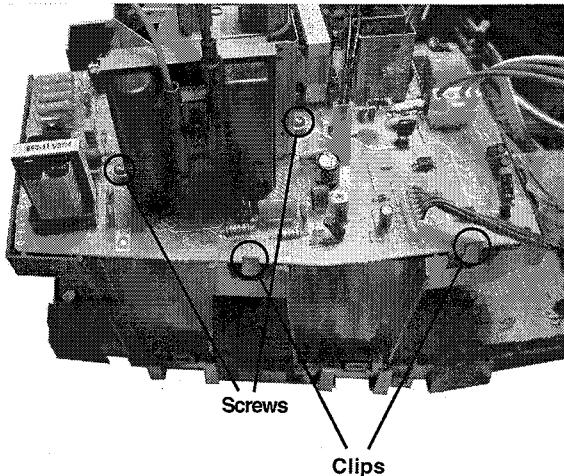
To place the chassis in the service position, insert the main bracket firmly into the T-slot located on the left corner of the bezel as indicated (see inset). To gain access to the underside of the boards follow the instructions on page 17. [Removal and Replacement of the main bracket bottom plates].

2-5. G Board Removal



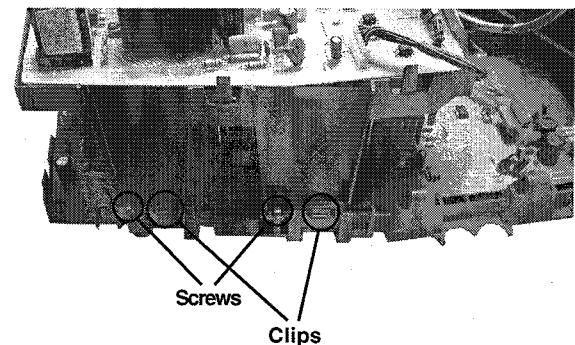
To remove the G Board remove the two screws from the middle of the board, release the clips circled and ease the board gently away from the support bracket.

2-6. D2 Board Removal



To remove the D2 board remove the two screws circled, release the clips circled and ease the board gently away from the support bracket.

2-7. D Board Removal

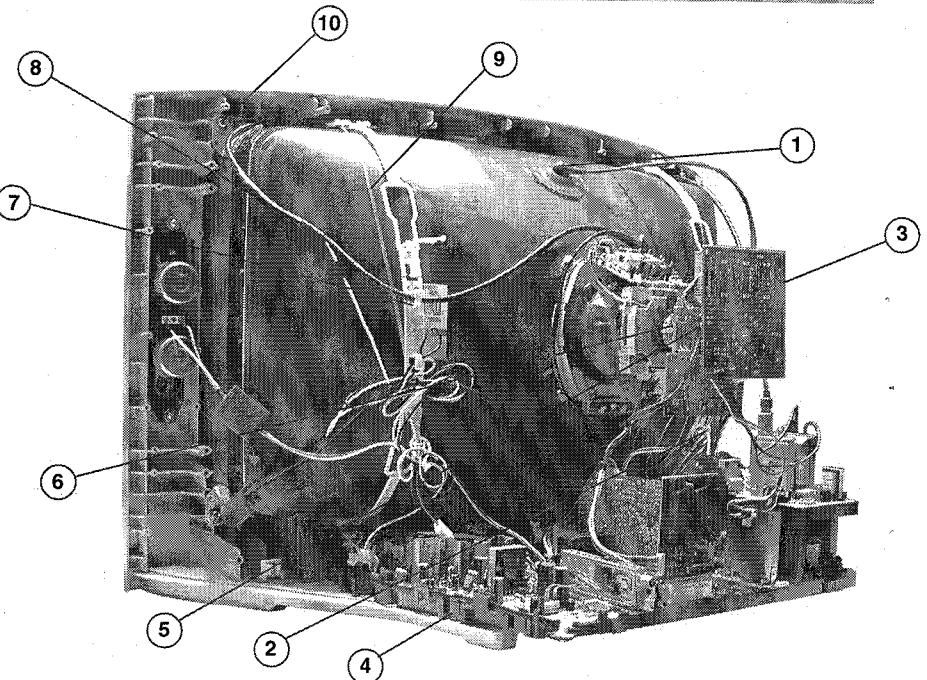
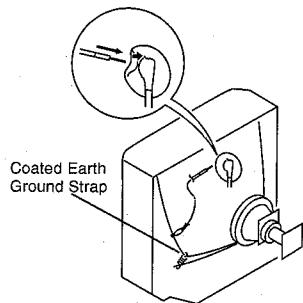


To remove the D board first remove the D2 bracket by removing the two screws circled and releasing the four clips (two on each side of the bracket). The D board can then be removed using the same method as the G board but with the necessity to remove only one screw from the middle of the D board.

2-8. Picture Tube Removal

WARNING: BEFORE REMOVING THE ANODE CAP

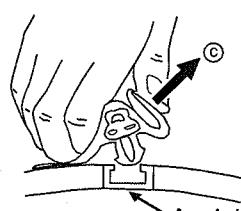
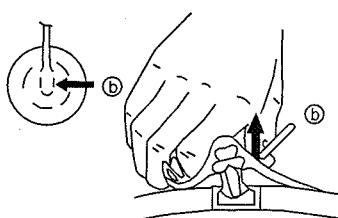
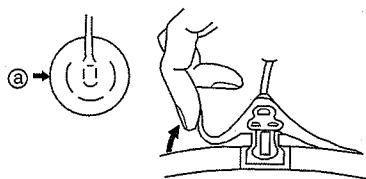
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the Deflection yoke, neck assy, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the Neck assembly fixing screw and remove.
6. Loosen the Deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the Degaussing Coil holders.
8. Remove the Degaussing Coils.
9. Remove the CRT grounding strap and spring tensioners.
10. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT.
[Take care not to handle the CRT by the neck.]

Removal of the Anode-Cap

REMOVAL PROCEDURE.



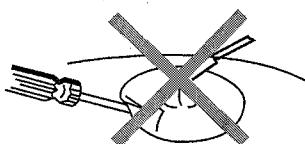
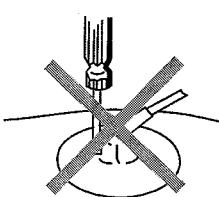
① Turn up one side of the rubber cap in the direction indicated by the arrow (a)

② Using a thumb pull up the rubber cap firmly in the direction indicated by the arrow (b)

③ When one side of the rubber cap is separated from the anode button, the anode-cap can be removed by turning up the rubber cap and pulling it up in the direction of the arrow (c)

How to handle the Anode-Cap

1. To prevent damaging the surface of the anode-cap do not use sharp materials.
2. Do not apply too great a pressure on the rubber, as this may cause damage to the anode connector.
3. A metal fitting called a shatter hook terminal is fitted inside the rubber cap.
4. Do not turn the rubber foot over excessively, this may cause damage if the shatter hook sticks out.



REMOVAL AND REPLACEMENT OF THE MAIN-BRACKET BOTTOM PLATES.

(1) REMOVING THE PLATES

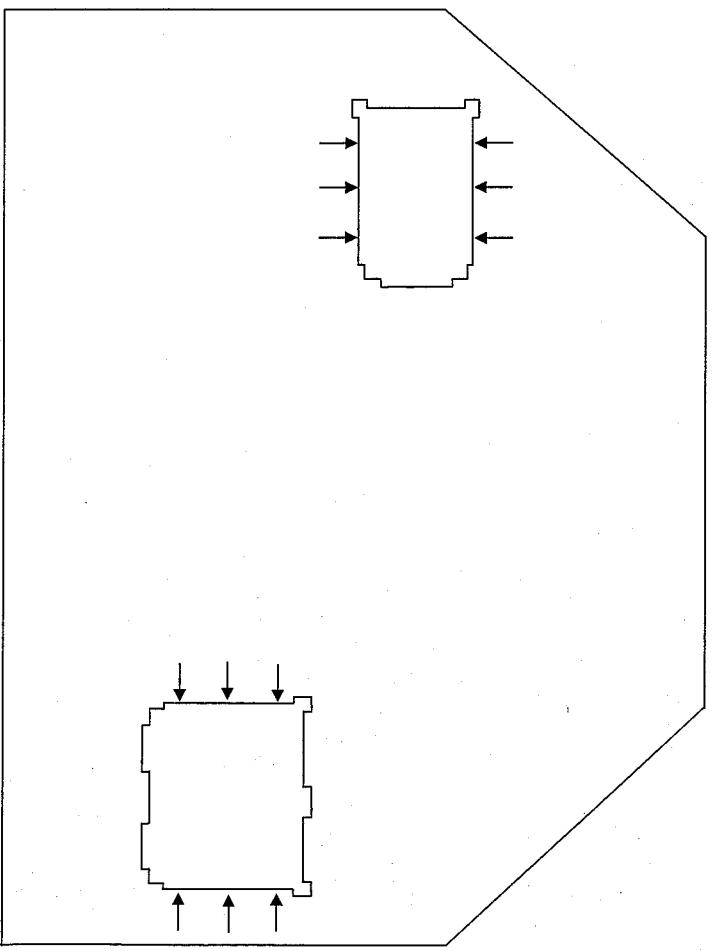
In the event of servicing being required to the solder side of the printed wiring boards, the bottom plates fitted to the main chassis bracket require to be removed. This is performed by cutting the gates with a sharp wire cutter at the locations indicated by the arrows.

Note : There are 2 plates fitted to the main bracket. Only remove the necessary plate to gain access to the printed wiring board.

(2) REFITTING THE PLATES

Because the plates differ in size it is important that the correct plates are refitted in their original location.

Please note that the plates need to be rotated 180 degrees from their cut position to allow the tabs to be fitted into their catch positions.



SECTION 3 SET-UP ADJUSTMENTS

- When complete readjustment is necessary or a new picture tube is installed, carry out the following adjustments.
- Unless there are specific instructions to the contrary, carry out these adjustments with the rated power supply.
- Unless there are specific instructions to the contrary, set the controls and switches to the following settings :

Contrast normal

Brightness normal

Carry out the adjustments in the following order :

- 3-1. Beam Landing.
- 3-2. Convergence.
- 3-3. Focus.
- 3-4. White Balance.

Note : Test equipment required.

1. Color bar/pattern generator.
2. Degausser.
3. Oscilloscope.
4. Digital multimeter.

3-1. Beam Landing

Preparation :

1. In order to reduce the influence of geomagnetism on the set's picture tube, face it in an easterly or westerly direction.
2. Switch on the TV set's power and degauss with a degausser.

(1) Adjustment of Correction Magnet for Y-Splitting Axis.

1. Input a crosshatch signal from the pattern generator.
2. Set the Picture control to minimum and confirm that the Brightness control is set to normal.
3. Position the neck assembly as indicated in Fig.3-2.
4. Loosen the deflection yoke fixing screw.
5. Move the deflection yoke as far forward as is possible.
6. Adjust the upper and lower pin symmetrically by opening or closing the Y-splitting axis correction magnets located on the neck assembly. [See Fig 3-3]
7. Return the deflection yoke to its original position and re-tighten its fixing screw.

(2) Landing

Note : Before carrying out the following adjustments adjust the magnets as indicated [See Fig.3-4].

1. Input a crosshatch signal from the signal generator.
2. Rough-adjust the focus and horizontal convergence.
3. Switch from the crosshatch pattern to an all-red pattern.
4. Move the deflection yoke backwards and adjust with the purity magnet so that the red is at the centre and it aligns symmetrically [See Fig.3-5].
5. Move the deflection yoke forward to the point where the entire screen just becomes red [Mark its position].
6. Move the deflection yoke further forward until the screen just changes colour at the edges. [Mark its position]
7. Position the deflection yoke between the two marks indicated above.
8. Input a crosshatch pattern from the pattern generator and rotate the deflection yoke so that the horizontal lines are parallel with the top and bottom of the screen.
9. When the position of the deflection yoke has been determined, fasten it with its fixing screw.
10. Switch the pattern generator to green then blue and confirm the purity.
11. If the beam does not land correctly in all the corners of the screen, use disk magnets to correct it. [Confirm the corner landing for green and blue]

Fig.3-1

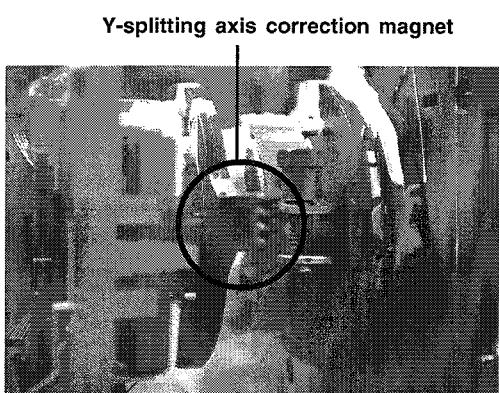


Fig.3-2

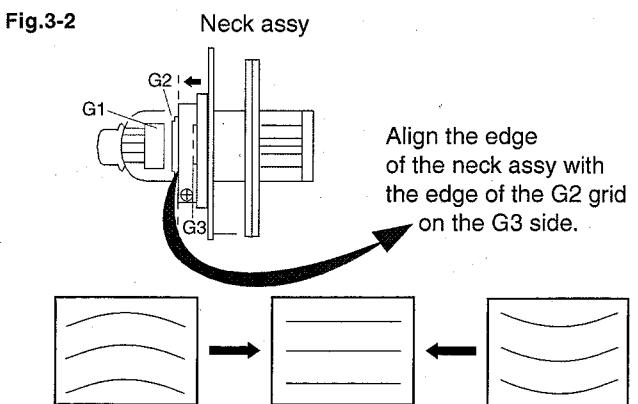
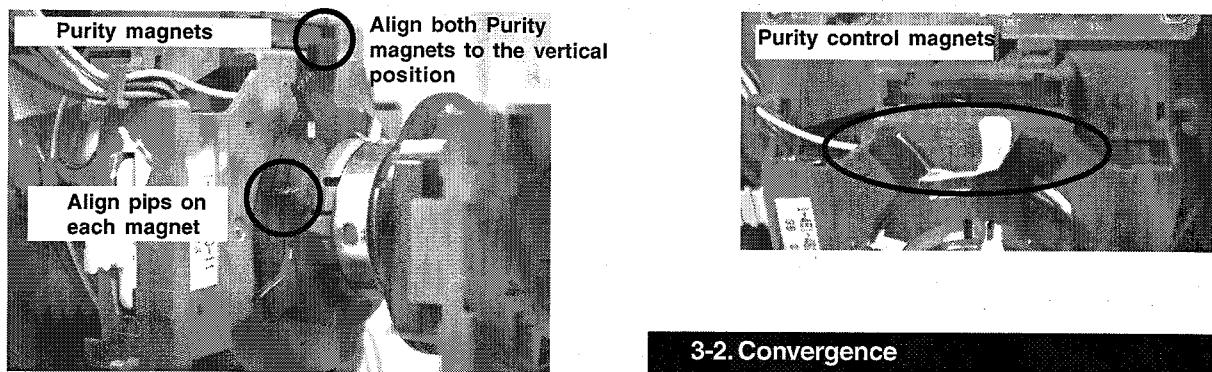


Fig.3-3

Caution :

High voltages are present on the Deflection yoke terminals - take care when handling the Deflection yoke whilst carrying out adjustments.

Fig.3-4



3-2. Convergence

(1) Screen centre convergence [Static convergence]

1. Input a dot pattern signal from the pattern generator.
2. Normalize the picture setting.
3. [Moving vertically], adjust the V.STAT magnet so that the vertical red, green and blue dots coincide at the centre of the screen.

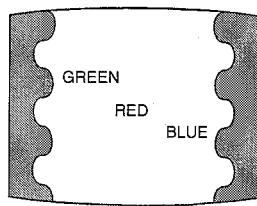
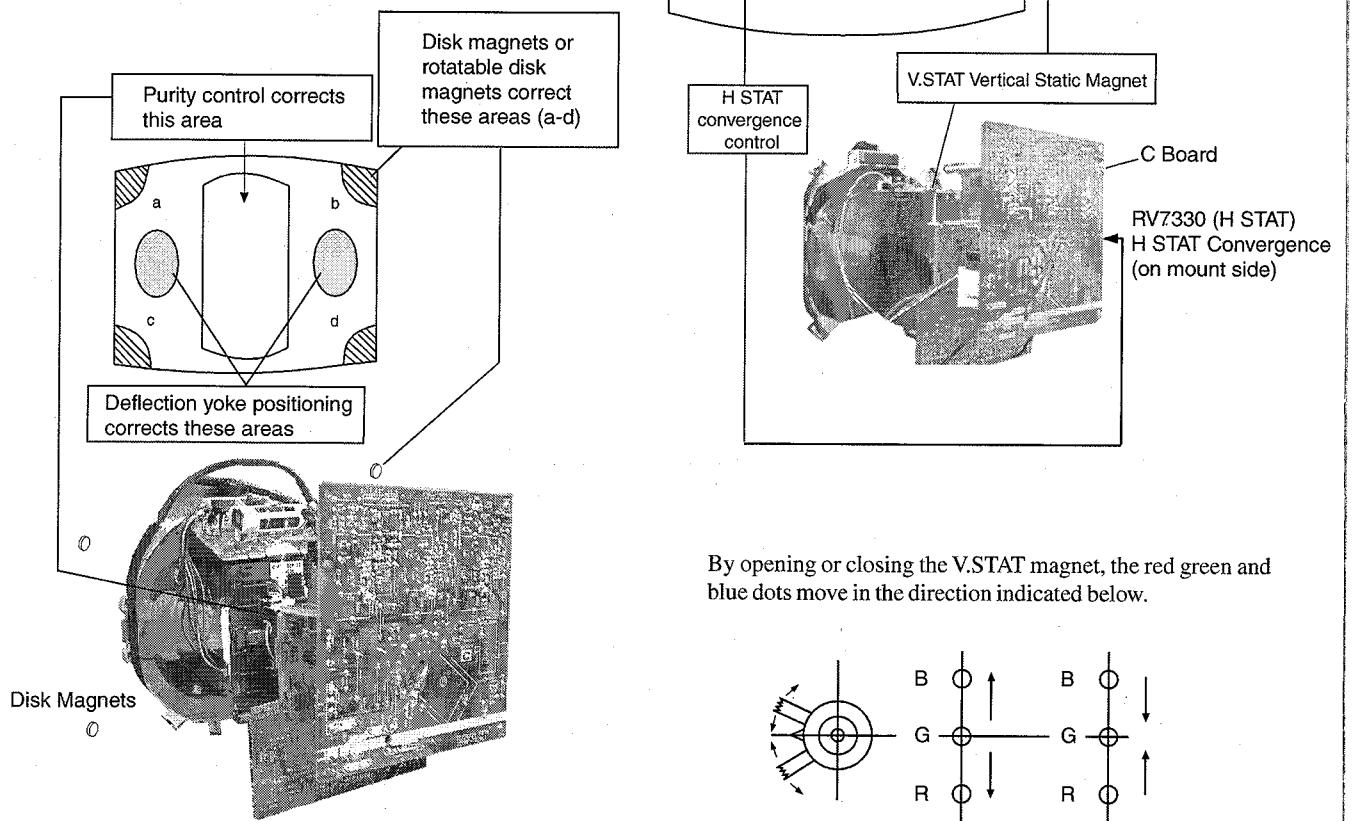
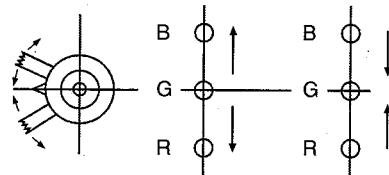


Fig.3-5



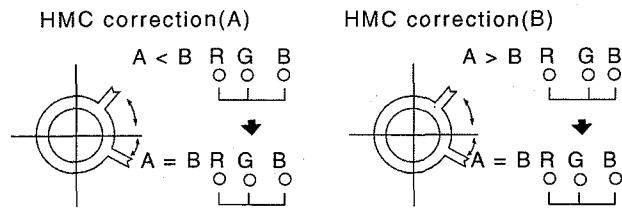
By opening or closing the V.STAT magnet, the red green and blue dots move in the direction indicated below.



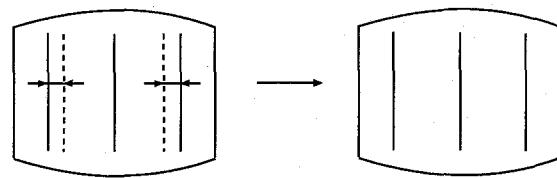
Note: Do not adjust the H.STAT by rotating the V.STAT magnets as this can affect the focus setting.

4. Correction for HMC [Horizontal mis-convergence] and VMC [Vertical mis-convergence] by using the BMC [Hexapole] magnet.

a). HMC correction by BMC [Hexapole] magnet and movement of the electron beam.

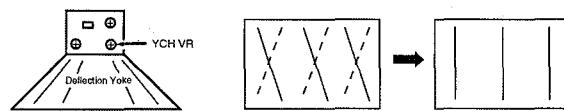
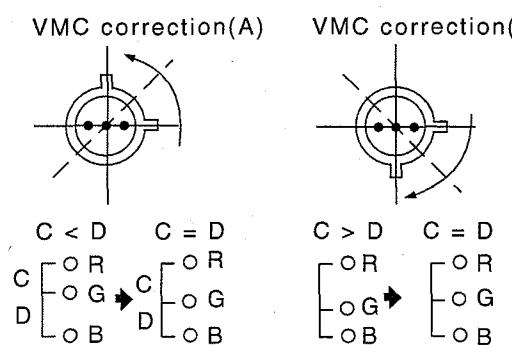


HTIL correction can be performed by adding a THL correction assembly to the Deflection yoke.



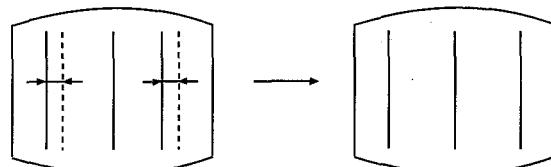
YCH Adjustment

b). VMC correction by BMC [Hexapole] magnet and movement of the electron beam.

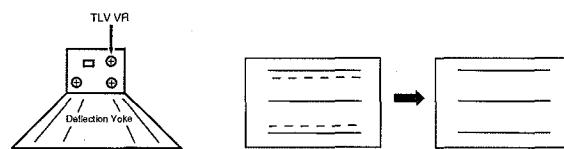


TLV Adjustment

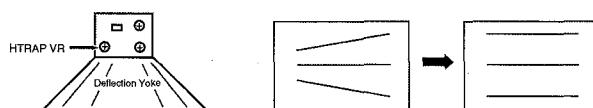
HAMP Adjustment



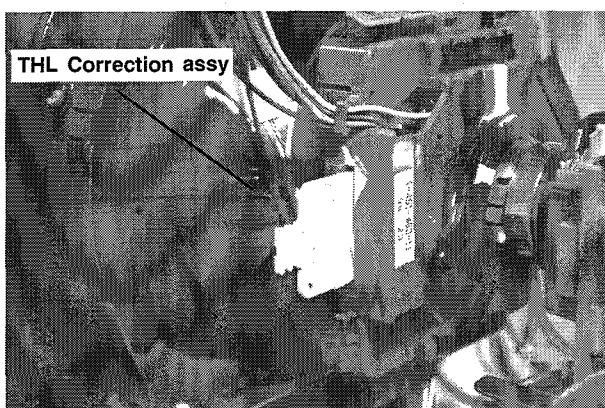
Adjust the HAMP using HAMPL and HAMPR registers in the Dynamic Convergence section of the service menu.



H-TRAP Adjustment

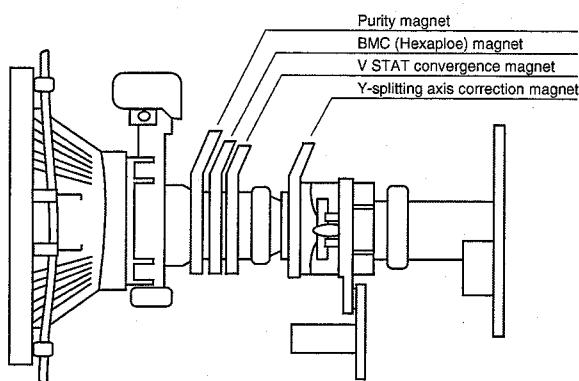


HTIL Adjustment

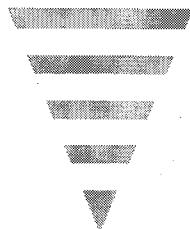
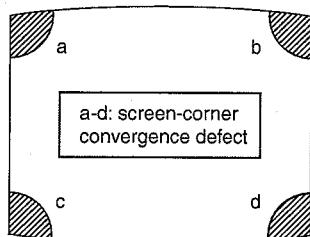


The H-TRAP should not be adjusted unless absolutely necessary as it affects the TLV settings.

Layout of each control

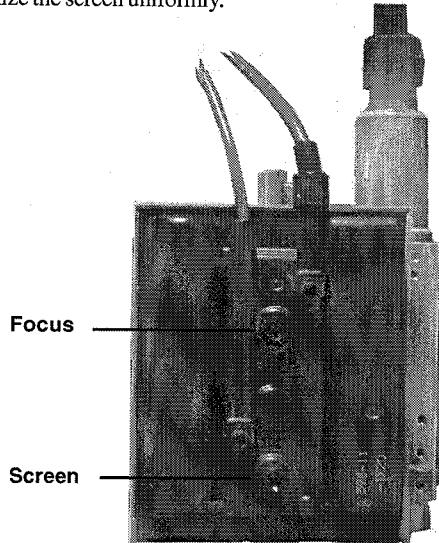


Note : If you are unable to adjust the corner convergence properly, this can be corrected with the use of permalloy magnets.



3-3. Focus Adjustment

1. Receive a television broadcast signal.
2. Normalize the picture setting.
3. Adjust the focus control located on the flyback transformer to obtain the best focus at the centre of the screen. Bring only the centre area of the screen into focus, the magenta-ring appears on the screen. In this case, adjust the focus to optimize the screen uniformly.



3-4. Screen (G2), White Balance

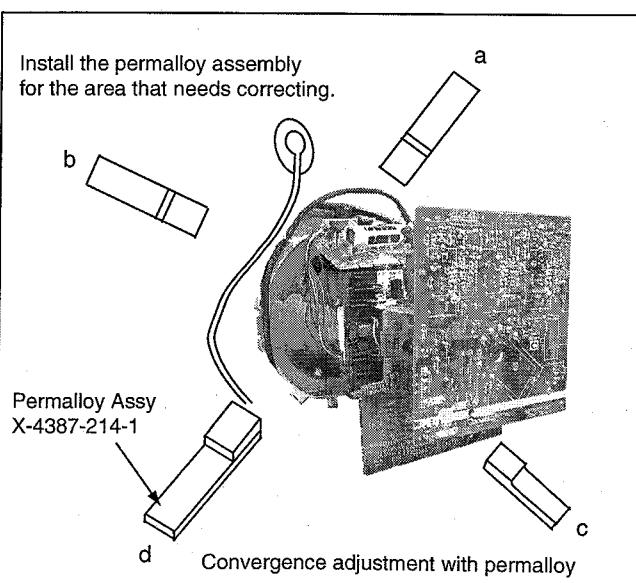
[Adjustment in the service mode using the remote commander]

G2 adjustment

1. Input a dot signal from the pattern generator.
2. Set the Picture, Brightness and Colour to minimum.
3. Apply 175V DC from an external power supply to the R, G and B cathodes of the CRT.
4. Whilst watching the picture, adjust the G2 control [SCREEN] located on the flyback transformer to the point just before the flyback return lines disappear.

White balance adjustment for TV mode

1. Input an all-white signal from the pattern generator.
2. Program the Remote Commander for operation in Service Mode. [See Page 22].
3. Enter into the 'Service Mode' by pressing 'AUX/VIDEO' button twice and 'MENU' on the Service Commander.
4. Select 'Service' from the on screen menu display and press 'Right Arrow'.
5. The 'Service' menu will appear on the screen.[See Page 22]
6. Select 'Picture' from the on screen menu and press right arrow.
7. Select 'Picture settings' from the on screen menu and press right arrow and set the 'Contrast_Max' to MAX.
8. Select 'White Balance' from the on screen menu and press right arrow.
9. The 'White Balance' menu will appear on the screen.
10. Set the 'Normal_PAL_RD' to 465.
11. Adjust the 'Normal_PAL_GD' and the 'Normal_PAL_BD' so that the white balance becomes optimum.
12. Select 'Picture settings' from the on screen menu and press right arrow and set the 'Contrast_Min' to MIN.
13. Set the 'Normal_PAL_RC' to 121.
14. Adjust the 'Normal_PAL_GC' and the 'Normal_PAL_BC' with the left and right buttons on the commander so that the white balance becomes optimum.
15. Press the 'OK' button to write the data for each item.



SECTION 4 CIRCUIT ADJUSTMENTS

4-1. Electrical Adjustments

Service adjustments to this model can be performed using the supplied remote Commander RM-945.

Programming the Remote Commander for Operation in Service Mode

1. Press and hold the left Mode Select button until the VCR and DVD LED's flash.
2. Press 99999. The TV LED should light. The remote commander is now set to Service Mode.
3. To return the remote commander to normal operation mode repeat step 1. then press 00000. The TV LED should light. The remote commander is now set to normal mode.



Setting the TV into Service Mode

1. Program the remote commander for operation in Service Mode as described above.
2. Turn on the TV main power switch.
3. Press the 'aux/video' standby button on the remote commander twice. 'TT __' will appear in the upper right corner of the screen. Other status information will also be displayed.
4. Press 'MENU' on the remote commander to obtain the following menu on the screen.

Service Main Menu:AE6BA/Y (v0.26D) NVM VERSION:04H	
Service	▶
Design	▶
Error	▶
Select: ▲ ▼ Select Item: ▶ FACTORY INFO:FFH FFH 03H	

5. Move to the corresponding adjustment item using the up or down arrow buttons on the Remote Commander.
6. Press the right arrow button to enter into the required menu item.
7. Press the 'aux/video' button on the Remote Commander to quit the Service Mode when all adjustments have been completed.

Note :

- After carrying out the service adjustments, to prevent the customer accessing the 'Service Menu' switch the TV set OFF and then ON.

Service	
Geometry	▶
Picture	▶
Audio	▶
Select: ▲ ▼	Select Item: ▶
Previous Menu: ◀	

Geometry	
Wide mode adjustment	▶
Screen offsets	▶
Frequency offsets	▶
Select: ▲ ▼	Select Item: ▶
Previous Menu: ◀	

Wide mode adjustment			
Description	(min,max)	Default	Value
V AMP	(-128,127)	35	35
V ZOOM	(0,510)	256	256
V POS	(-512,511)	-10	-10
V LIN	(-128,127)	0	0
V SCORR	(-128,1270)	4	4
H WIDTH	(-256,255)	63	63
V TRAP	(-128,127)	1	1
PIN AMP	(-511,511)	-80	-80
UP COR	(-128,127)	-1	-1
LOW COR	(-128,127)	-2	-2
H POS	(-600,600)	10	10
ANGLE	(-511,511)	-1	-1
BOW	(-511,511)	8	8
H LIN	(0,255)	85	84
H TRAP	(0,255)	138	138
H SCORR	(0,255)	100	100
UP COR 6	(-128,127)	-1	-1
LOW COR 6	(-128,127)	0	0
PIN UNBAL	(-240,240)	-40	-40
MID PIN	(-240,240)	-60	-60

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Picture	
White balance	▶
Colour Tone	▶
Picture settings	▶
Select: ▲ ▼	Select Item: ▶
Previous Menu: ◀	

Picture settings				
Description	(min,max)	Default	Value	▶
SUBCOLOR PAL	(0,63)	31	34	▶
SUBCOLOR SECAM	(0,63)	31	34	
SHP MAXLTI	(0,31)	31	20	
SHP MAXPEAK	(0,15)	15	12	
CONTRAST MIN	(0,63)	17	17	
CONTRAST MAX	(0,63)	59	59	
BRIGHT EXPAND	(0,511)	400	400	
BRIGHT CENTER	(-256,255)	10	40	

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Audio				
BBE OFF mode				▶
BBE Natural/V.Dolby offsets				
BBE Dynamic offsets				
BBE Cinema offsets				
Subwoofer level adjustments				
Audio detection thresholds				

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

BBE OFF mode				
Description	(min,max)	Default	Value	▶
SW_FREQ_OFF	(5,40)	20	20	▶
BAND1_OFF_OFFSET	(-96,96)	0	0	
BAND2_OFF_OFFSET	(-96,96)	0	0	
BAND3_OFF_OFFSET	(-96,96)	0	0	
BAND4_OFF_OFFSET	(-96,96)	0	0	
BAND5_OFF_OFFSET	(-96,96)	0	0	
BBELOUDNESS_OFF	(0,68)	0	0	

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Design				
CXA2149 - AVSwitch Device				▶
DDP3315 - Backend Device				
MSP3411 - Sound Processor Device				
TDA988x - IF Device				
TUA60xx - PLL Device				
VSP9427 - Video Processor Device				
CXA2019 - Chroma Decoder				
CXD3804 - 3D Comb Filter				
CXA8070 - Dynamic Convergence Device				
FRC9429 - FRCA Device				
PJ Engine				

Select: ▲ ▼ Select Item: ▶ Previous Menu: ◀

Error monitor		
WORKING TIME:	(Hours:Minutes)	82:33
Error counters:		
E02: OCP		0
E03: OVP		0
E04: NO V SYNC		0
E05: IKR		0
E06: IIC		0
E07: NVM		0
E08: H PROT		0
E09: TUNER		0
E10: SOUND		0
E11: 9 VOLTS		0
E12: SCANRATE		0
E13: 3DCOMB		0
E14: BACKEND		0
E15: DYNCON		0
E16: HIGH VOLTAGE		0
E17: AVSWITCH		0
E18: CHROMA DEC		0
E19: FRCA		0
E20: PJ ENG		0
E21: DAC		0
E24: SPEAKER PROT		0
E25: MEMORY STICK		0

Select: ▲ ▼ Previous Menu: ◀

Sub Brightness Adjustment

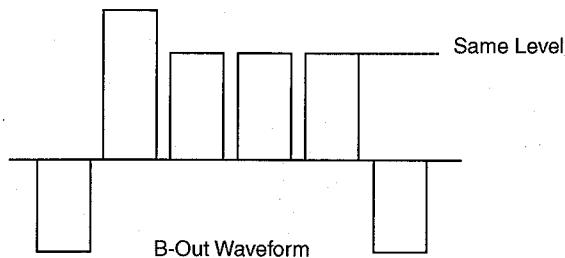
1. Input a Monoscope pattern.
2. Program the Remote Commander for operation in Service Mode. [See Page 22].
3. Press 'AUX/VIDEO' 'AUX/VIDEO' 13 on the Remote Commander.
4. Adjust the 'Sub-Brightness' data so that there is barely a difference between the 0 IRE and 10 IRE signal levels.

Sub Contrast Adjustment

1. Input a video signal that contains a small 100% white area on a black background.
2. Connect an oscilloscope to Pin 10 of J7330 [C Board].
3. Program the Remote Commander for operation in Service Mode. [See Page 22].
4. Adjust the Sub-Contrast [Using 'AUX/VIDEO' 'AUX/VIDEO' '11'] to obtain a voltage of 114 +0/- 5V.

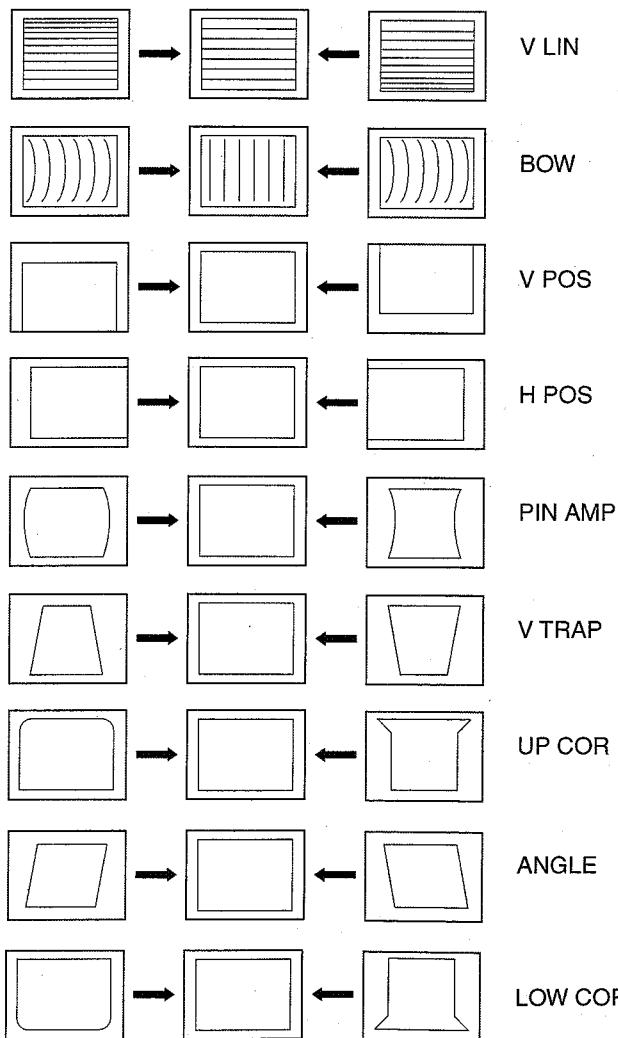
Sub Colour Adjustment

1. Receive a PAL colour bar signal.
2. Connect an oscilloscope to Pin 5 of CN7331 [C Board].
3. Program the Remote Commander for operation in Service Mode. [See Page 22].
4. Adjust the 'Sub Colour' [Using 'AUX/VIDEO' 'AUX/VIDEO' '12'] so that the Cyan, Magenta and Blue colour bars are of equal levels as indicated below.



Deflection System Adjustment

1. Program the Remote Commander for operation in Service Mode. [See Page 22] and enter into the 'Geometry' service menu, Wide mode adjustment.
2. Select and adjust each item in order to obtain the optimum image.

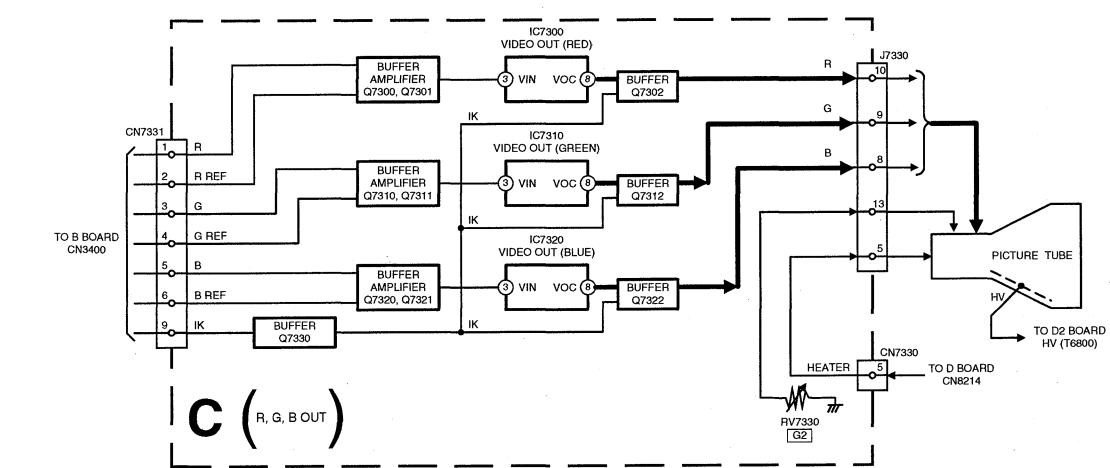
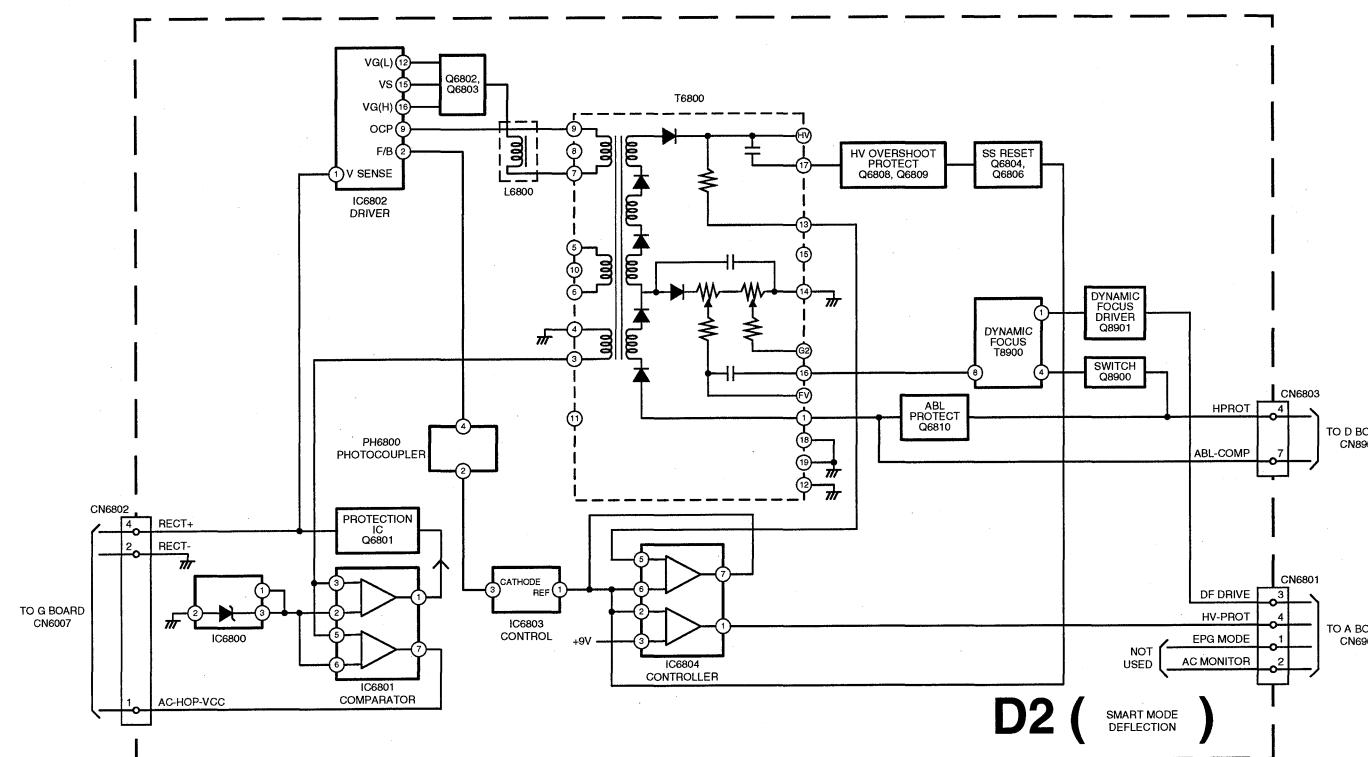
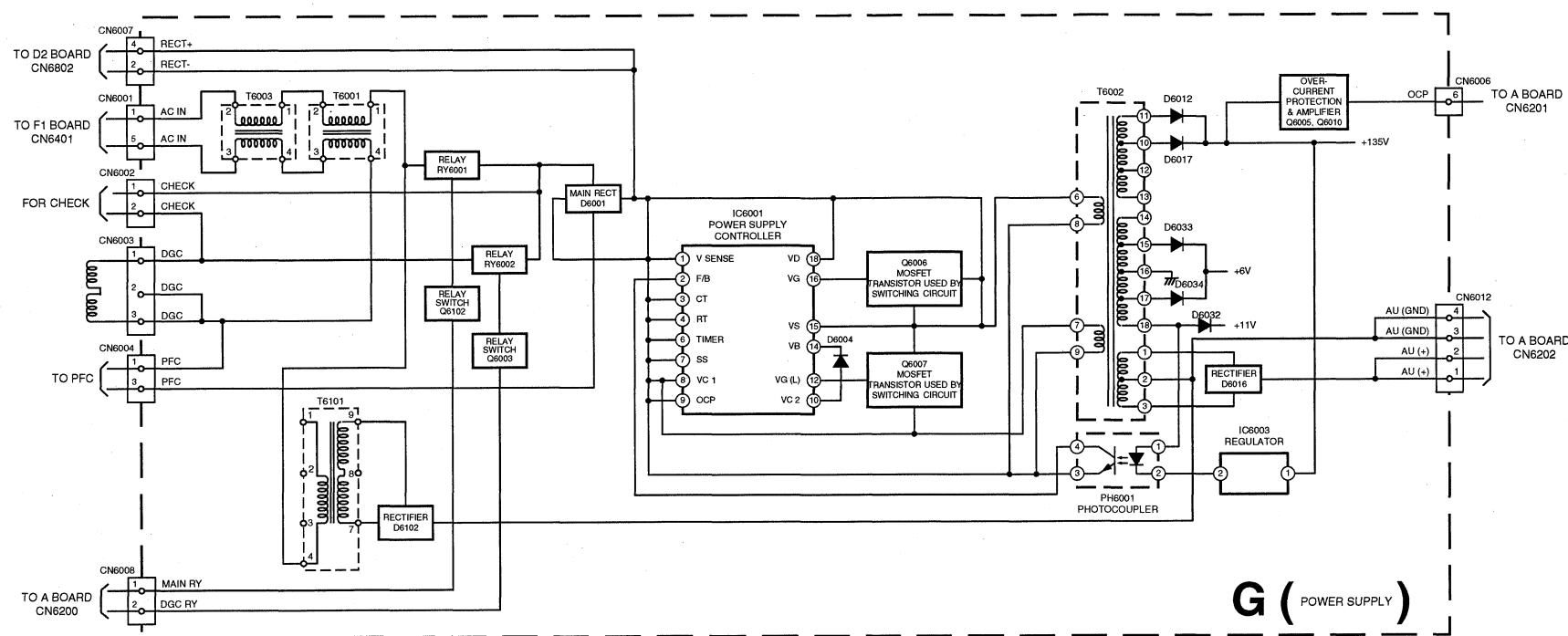


4-2 TEST MODE 2:

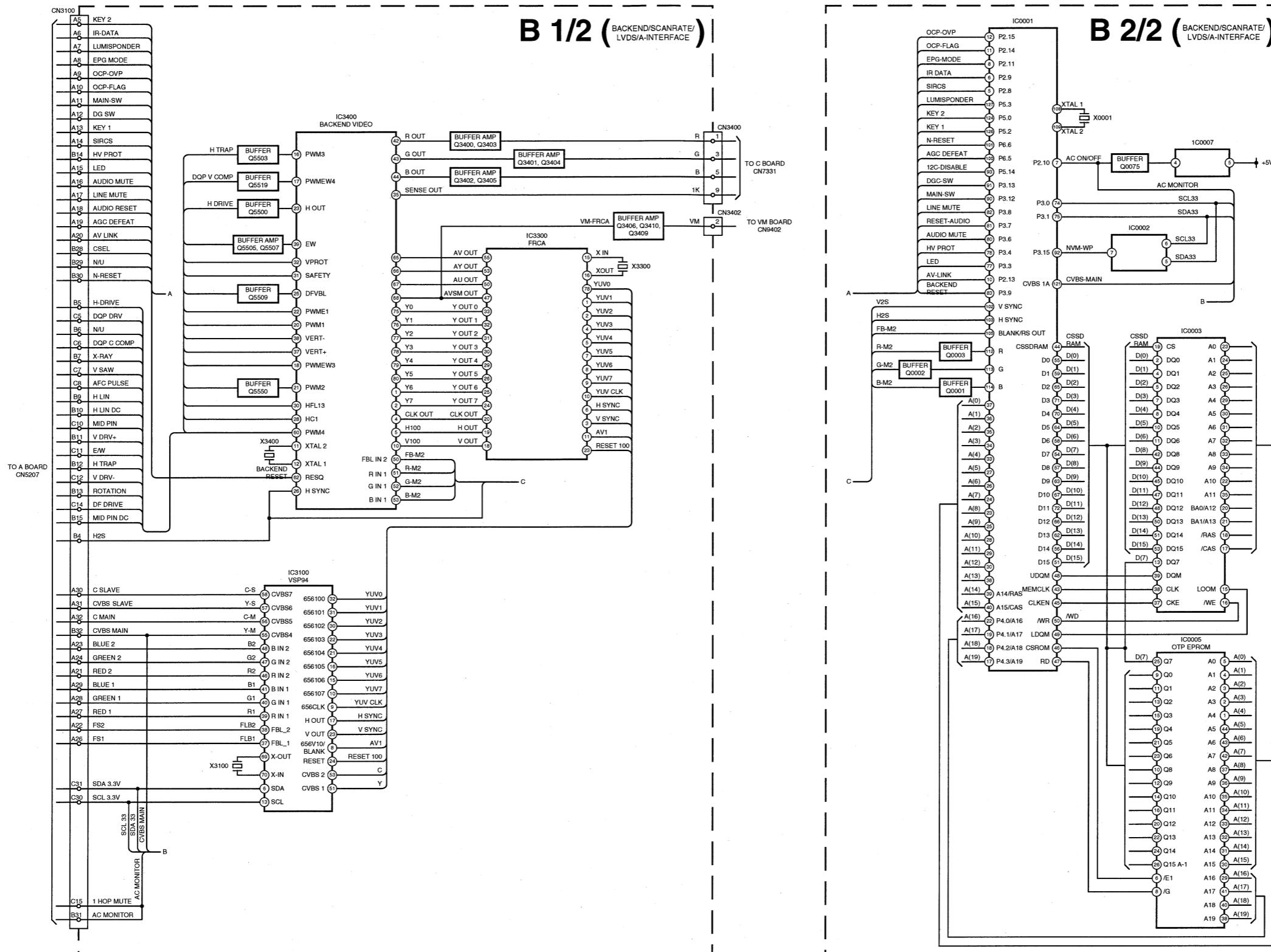
Test Mode 2 is available by programming the Remote Commander for operation in Service Mode [As shown on Page 22] then pressing the 'AUX/VIDEO' button twice, OSD 'TT' appears. The functions described below are available by selecting the two numbers. To release 'Test mode 2', press 00, or switch the TV set into Stand-by mode.

00	'TT' mode off
01	Set picture level to maximum
02	Set picture level to minimum
03	Set speaker/headphone Volume to 35%
04	Set speaker/headphone Volume to 50%
05	Set speaker/headphone Volume to 65%
06	Set speaker/headphone Volume to 80%
07	Ageing mode on
08	Shipping Condition
11	Sub picture adjustment
12	Sub colour adjustment
13	Sub brightness adjustment
15	Rotation coil test
16	Picture level 50%
19	Factory mode enable/disable
21	Destination ADEKR
22	Destination BL
24	Destination U
35	Wide model selection
36	VM off/on test
43	Select Dual A sound
44	Select Dual B sound
45	Select Mono sound
46	Select Stereo sound
49	Set NVM as virgin
53	FM Overmodulation enable/disable
62	AM from baseband enable/disable
73	Enable Zweiton D/K2 system (6.5/6.74)
74	Enable Zweiton D/K3 system (6.5/6.74)
78	Balance full left
79	Balance full right
87	Local keys test
91	Set 14:9 zoom mode
92	Set Smart zoom mode
93	Set 16:9 zoom mode
94	Set ZOOM zoom mode
95	Set 4:3 zoom mode
96	Set Smart zoom mode (for FX66)
99	DisplayError and Working Time menu

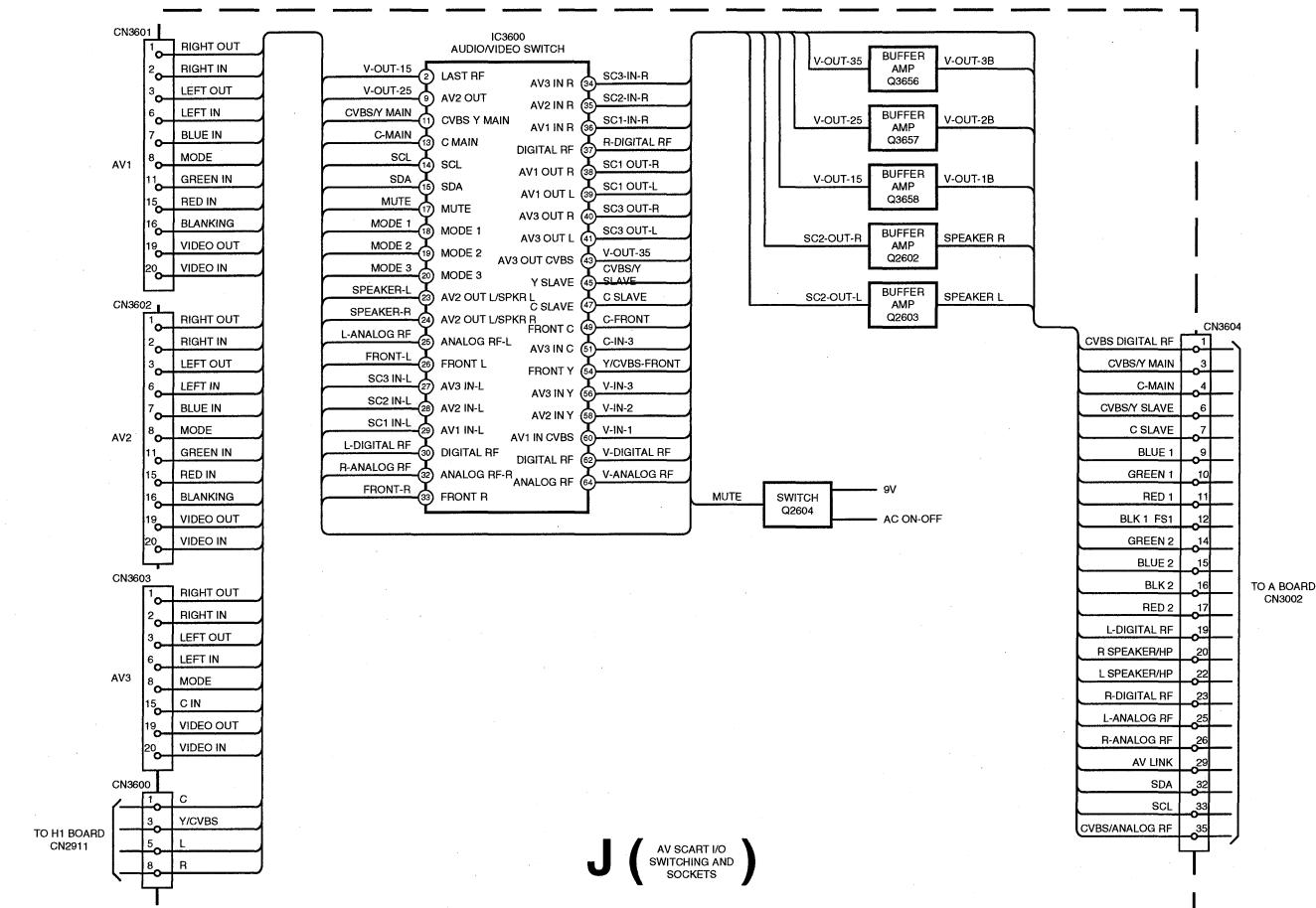
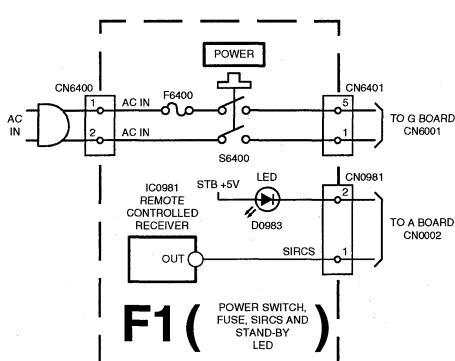
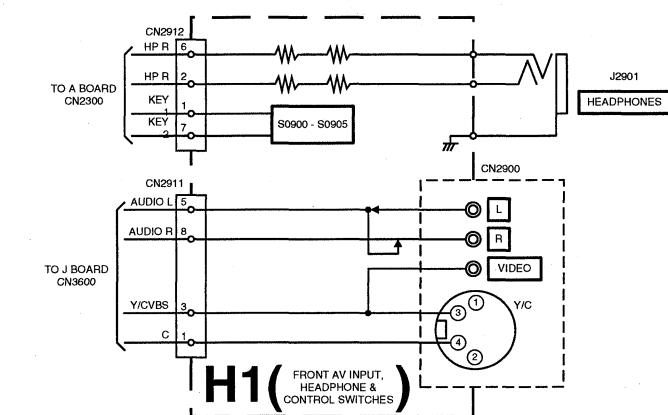
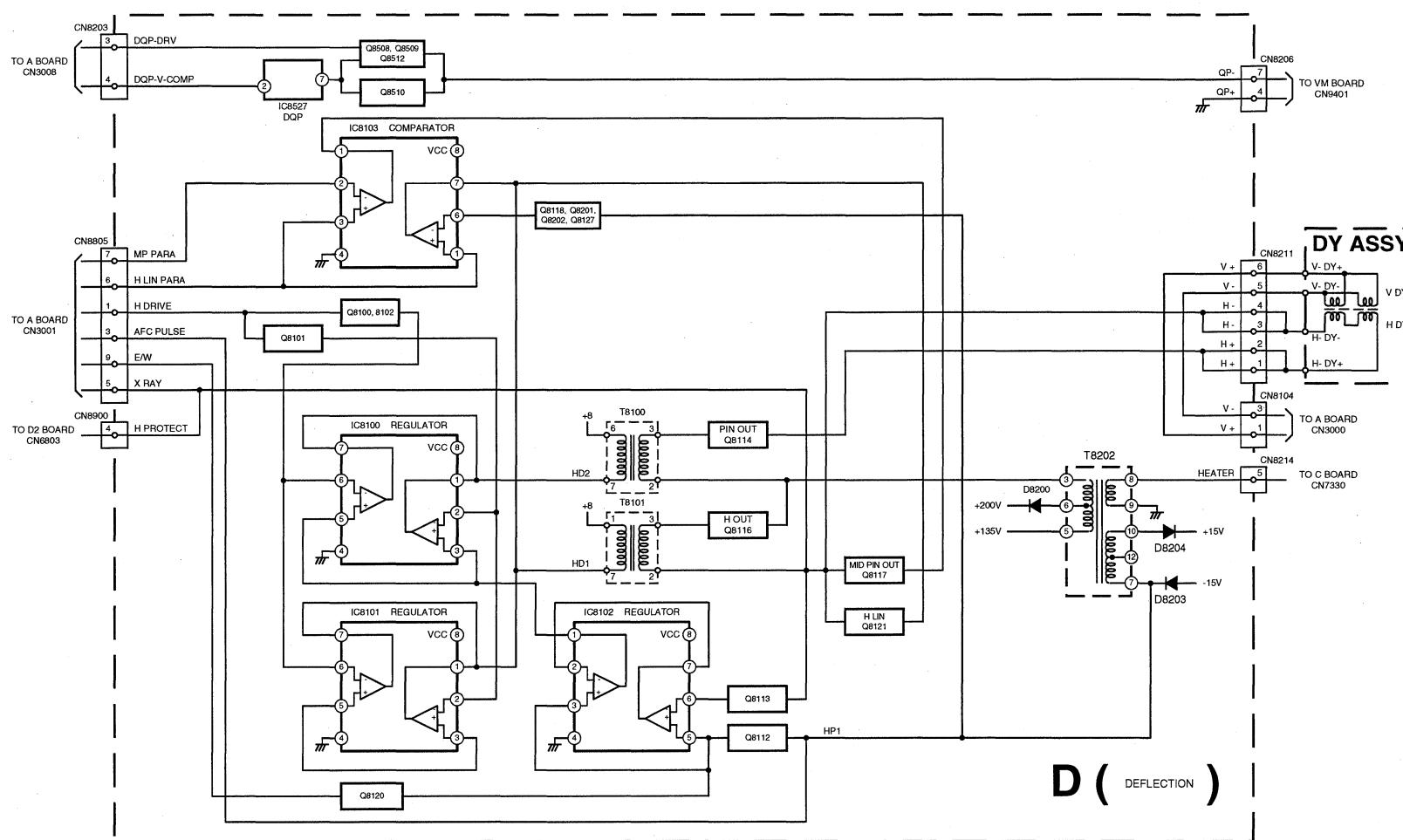
5-1. BLOCK DIAGRAMS (1)



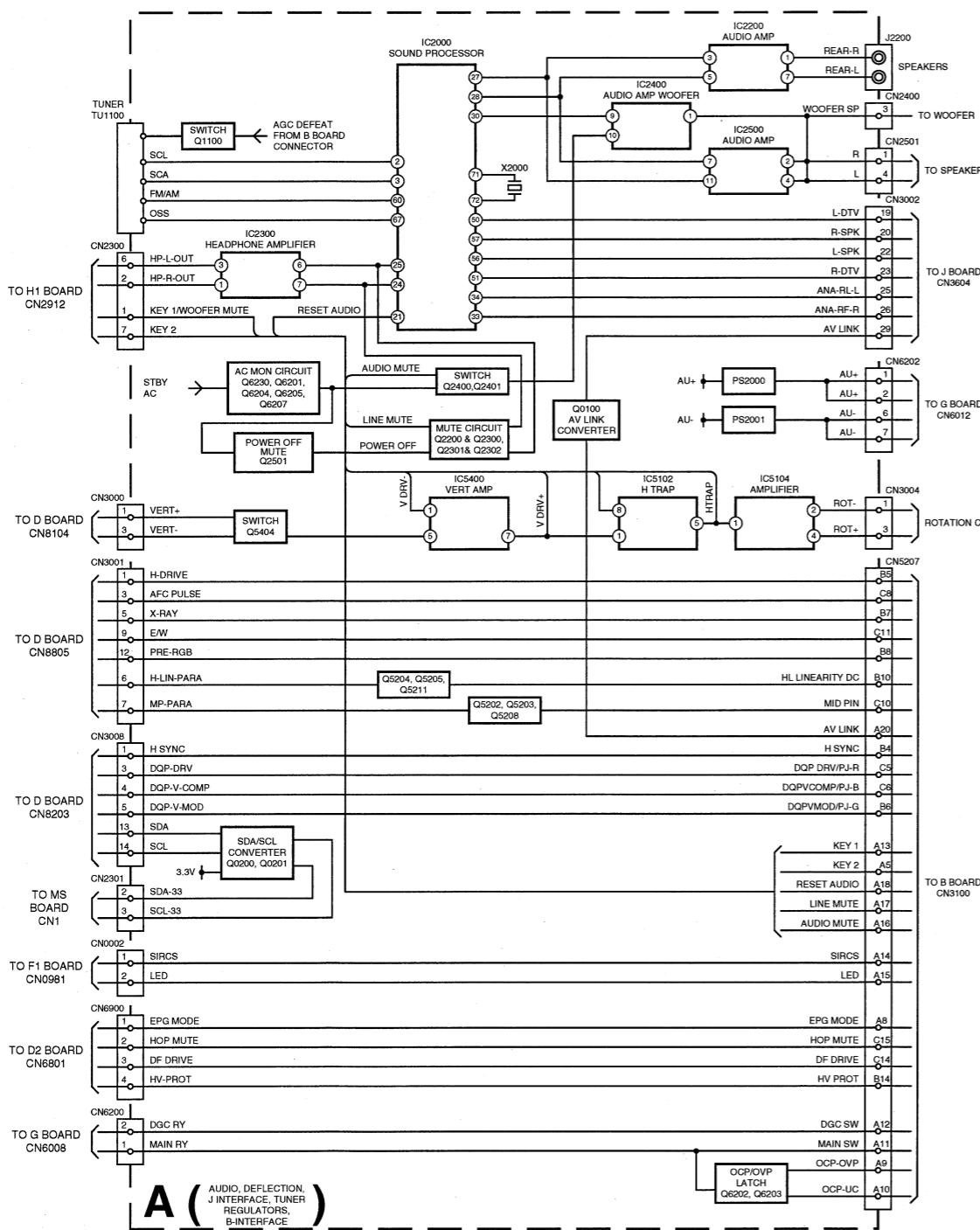
5-1. BLOCK DIAGRAMS (2)



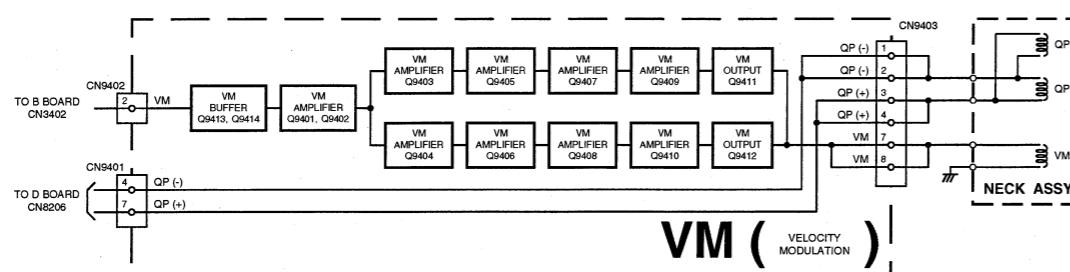
5-1. BLOCK DIAGRAMS (3)



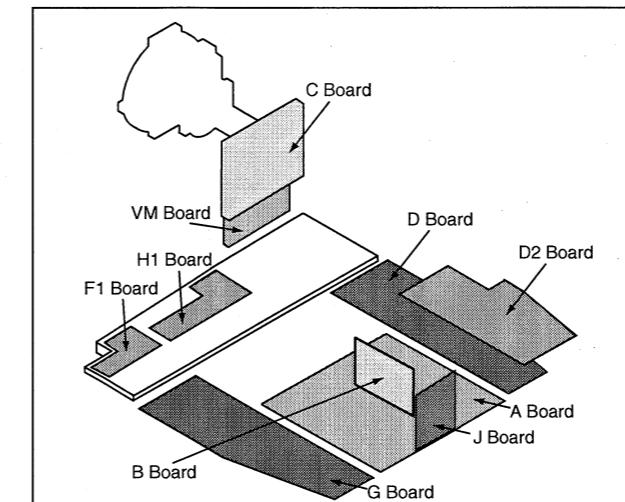
5-1. BLOCK DIAGRAMS (4)



VM (VELOCITY MODULATION)



5-2. CIRCUIT BOARD LOCATION



Reference Information

RESISTOR	RN	: METAL FILM
	RC	: SOLID
	FPRD	: NON FLAMMABLE CARBON
	FUSE	: NON FLAMMABLE FUSIBLE
	RS	: NON FLAMMABLE METAL OXIDE
	RB	: NON FLAMMABLE CEMENT
	RW	: NON FLAMMABLE WIREWOUND
	XR	: ADJUSTMENT RESISTOR
COIL	LF-8L	: MICRO INDUCTOR
CAPACITOR	TA	: TANTALUM
	PS	: STYROL
	PP	: POLYPROPYLENE
	PT	: MYLAR
	MPS	: METALIZED POLYESTER
	MPP	: METALIZED POLYPROPYLENE
	ALB	: BIPOLAR
	ALT	: HIGH TEMPERATURE
	ALR	: HIGH RIPPLE

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

Note : Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces de numéro spécifié.

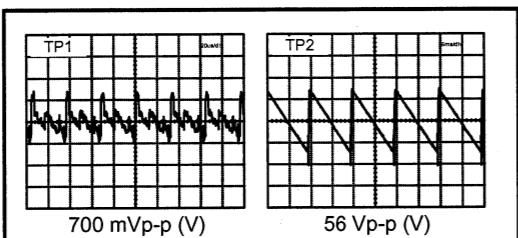
Note :

- All capacitors are in μ F unless otherwise noted.
- μ F : μ F 50WV or less are not indicated except for electrolytic types.
- Indication of resistance, which does not have one for rating electrical power, is as follows.

Pitch : 5mm
Electrical power rating : 1/4W

- Chip resistors are 1/10W
- All resistors are in ohms.
 $k = 1000$ ohms, $M = 1000,000$ ohms
- : nonflammable resistor.
- : fusible resistor.
- : internal component.
- : panel designation or adjustment for repair.
- All variable and adjustable resistors have characteristic curve B, unless otherwise noted.
- All voltages are in Volts.
- Readings are taken with a 10Mohm digital multimeter.
- Readings are taken with a color bar input signal.
- Voltage variations may be noted due to normal production tolerances.
- : B + bus.
- : B - bus.
- : RF signal path.
- : earth - ground.
- : earth - chassis.

~ A Board Waveforms ~



~ A Board Semiconductor Voltage Table ~

Ref	(e)(s)	(b)(g)	(c)(d)																				
Q1100	0	0	4.5	Q2202	0	0.4	0	Q2500	0.1	0.1	0.6	Q5101	0.8	1.4	6.8	Q5208	0	0	1.5	Q6202	3.4	3.4	0
Q1300	2.7	2.1	8.4	Q2300	0	0	0.7	Q2501	0	0.6	0	Q5200	6.8	6.3	3.0	Q5209	0	0	1.5	Q6203	0	0	3.4
Q1301	2.1	2.1	0	Q2301	0	0.4	0	Q2502	0	0	5.0	Q5201	0	0.4	3.0	Q5210	0	0	1.5	Q6204	3.4	3.4	0
Q2000	0	0	4.7	Q2302	0	0.4	0	Q2503	0	0	5.0	Q5203	0	0.4	3.0	Q5211	0	0	1.5	Q6205	3.5	2.7	3.4
Q2200	0	0	-1.6	Q2400	3.9	3.4	0	Q2504	5.0	5.0	0	Q5205	0	0.4	1.5	Q5404	0	12.1	0	Q6206	1.5	2.0	2.7
Q2201	0	0.4	0	Q2401	0	0	4.7	Q5100	2.4	1.8	0	Q5207	0	0.4	3.0	Q6201	1.5	0.6	3.4	Q6207	0	0	3.4

~ A Board Location Table (A Side) ~

DIODE	D5405	D - 10	D6211	K - 4	IC2500	H - 3	IC6204	M - 4	
D2200	D - 3	D6201	J - 9	D6212	J - 9	IC5102	I - 10	IC6207	J - 10
D2201	E - 3	D6203	L - 5	D6213	L - 8	IC5104	H - 10	IC6209	J - 8
D5103	H - 10	D6204	K - 2	IC		IC5400	E - 10	IC6210	K - 4
D5404	E - 11	D6210	L - 4	IC2400	J - 4	IC6202	L - 8	IC6212	L - 3

~ A Board IC Voltage Table ~

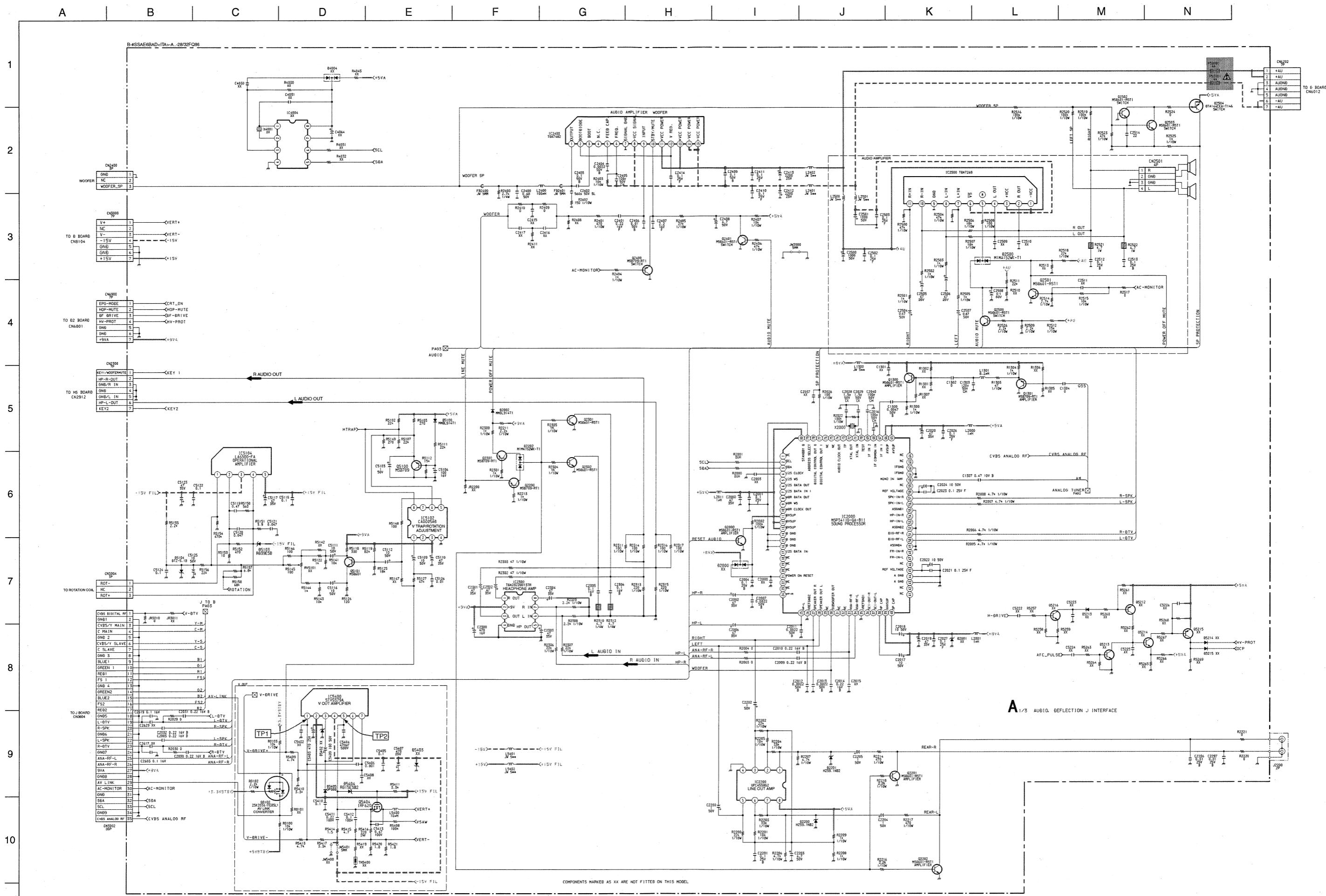
IC Voltage Table														
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC2200	1	4.5	IC2300	6	0	IC2400	12	-4.0	IC5102	2	0	IC5400	7	0.4
	2	4.5		7	0		2	0		5	2.5		4	1.3
	3	4.5		8	0.5		5	0.9		6	2.5		5	6.7
	5	4.5		1	0		7	0		8	2.2		4	1.3
	6	4.5		2	-4.0		8	0		IC5104	1	14.6	5	6.7
	7	4.5		3	10.0		9	0		1	0.4	4	1.3	
	1	4.0		5	0		10	0		3	-12.3	5	6.7	
IC2300	3	4.0		6	-13.2		11	0		5	0	IC6209	4	5.1
	5	0.5		10	3.9		IC5102	1	17.1	6	15.7		5	0

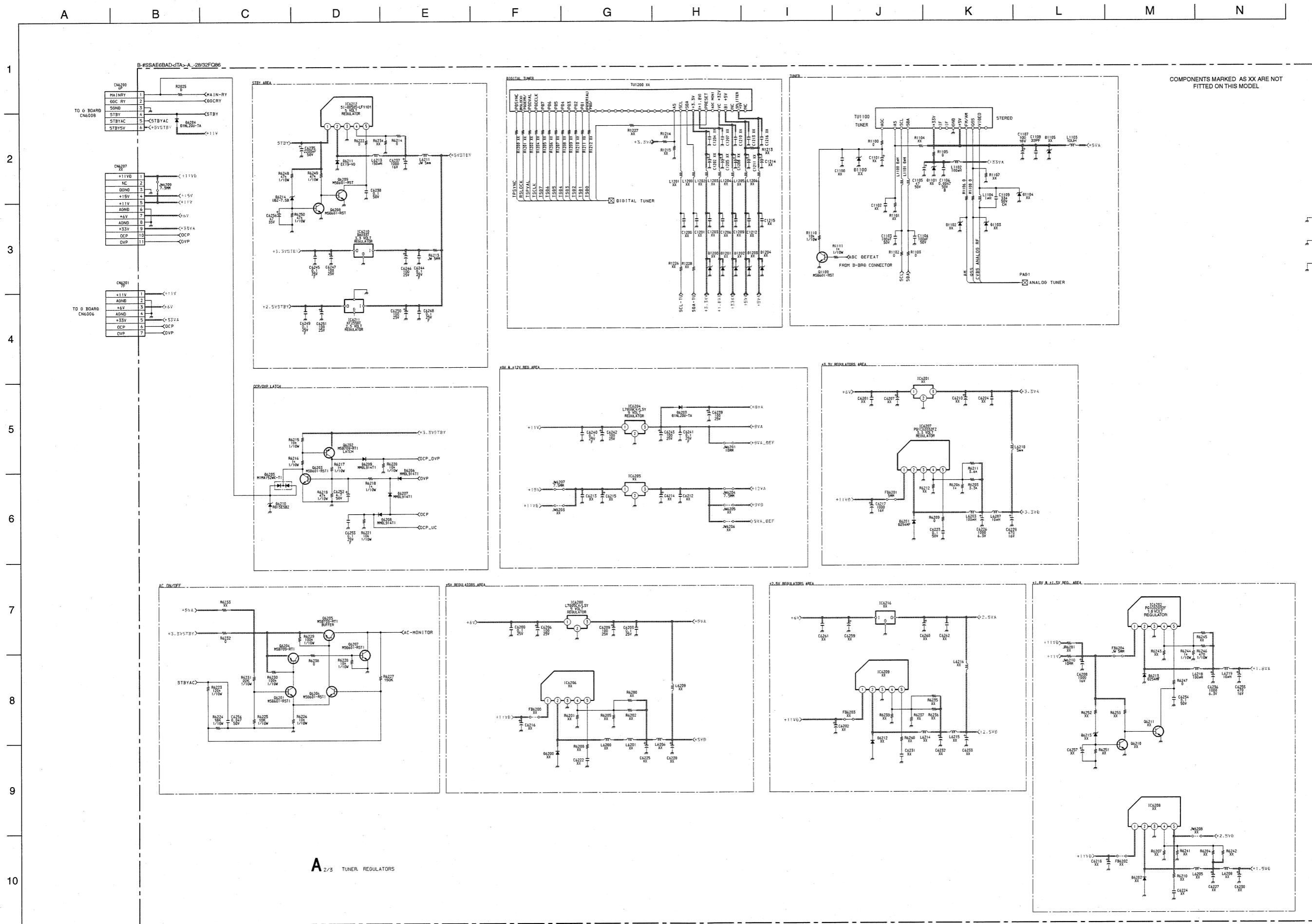
~ A Board Location Table (B Side) ~

DIODE	D5206	G - 7	D6204	E - 2	IC2200	L - 4	IC6207	F - 9	Q1300	L - 2	Q2401	F - 4	Q5202	H - 4	Q5404	K - 10			
D2200	L - 3	D5207	G - 6	D6205	E - 3	IC2300	J - 3	IC6209	F - 9	Q1301	K - 2	Q2500	H - 3	Q5203	H - 4	Q6201	E - 2		
D2201	J - 4	D5208	H - 6	D6206	D - 3	IC2400	G - 4	IC6210	F - 4	Q2000	J - 3	Q2501	H - 3	Q5204	G - 7	Q6202	E - 3		
D2202	J - 4	D5209	G - 7	D6207	D - 3	IC2500	H - 3	IC6211	E - 5	Q2200	I - 4	Q2502	H - 4	Q5205	F - 6	Q6203	E - 3		
D2500	H - 3	D5210	G - 6	D6208	D - 3	IC5102	G - 10	IC6212	E - 4	Q2201	L - 3	Q2503	H - 4	Q5206	H - 7	Q6204	E - 3		
D5103	G - 10	D5211	G - 6	D6210	D - 3	IC5104	H - 10	Q2202	L - 3	Q2504	H - 4	Q5207	H - 6	Q6205	E - 2				
D5104	H - 9	D5213	D - 8	IC5400	K - 10	Q0100	K - 6	Q2300	I - 4	Q5100	G - 10	Q5208	G - 7	Q6206	E - 2				
D5200	F - 7	D5204	K - 10	D6213	D - 8	IC6200	E - 5	Q0200	K - 7	Q2301	I - 4	Q5101	F - 10	Q5209	H - 6	Q6207	E - 2		
D5202	F - 6	D5205	L - 10	D6214	E - 4	IC6202	D - 8	Q0201	K - 7	Q2302	J - 4	Q5200	F - 6	Q5210	G - 6	Q6208	E - 3		
D5205	G - 7	D6201	F - 9	IC6204	E - 4	Q1100	M - 2	Q2400	F - 4	Q5201	F - 6	Q5211	G - 6	Q6209	E - 4				

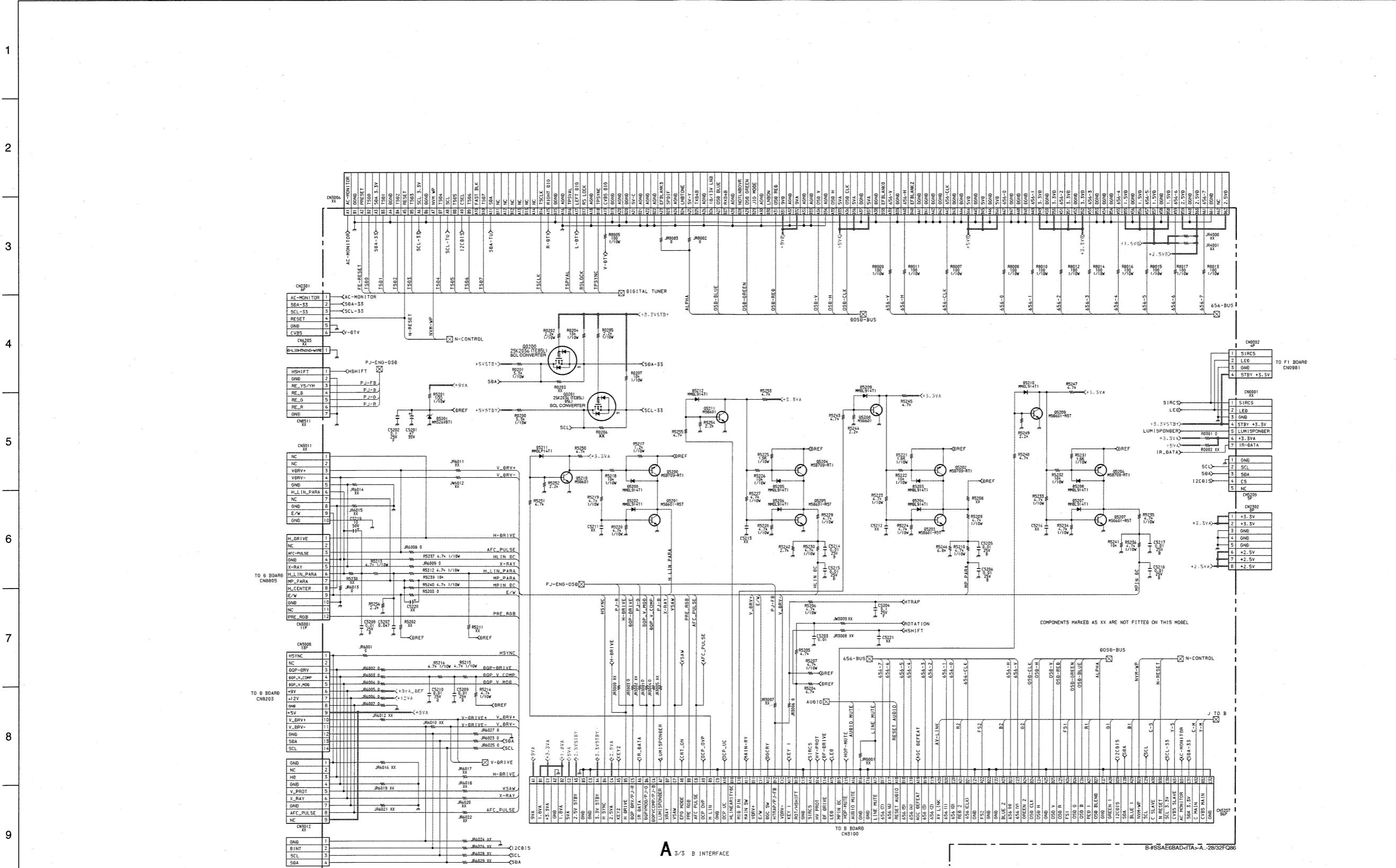
~ A Board Difference Table ~

Ref	KV-28FQ86B	KV-28FQ86E	KV-32FQ86B	KV-32FQ86E	KV-32FQ86K	KV-32FQ86U
TU1100	FRONTEND BTF-EF411	FRONTEND BTF-EC411	FRONTEND BTF-EF411	FRONTEND BTF-EC411	FRONTEND BTF-EC411	FRONTEND BTF-EU611





~ A Board Schematic Diagram [Tuner, Regulators] Page 2/3 ~



A | B | C | D | E | F | G | H | I | J | K | L | M | N

1

2

3

4

5

6

7

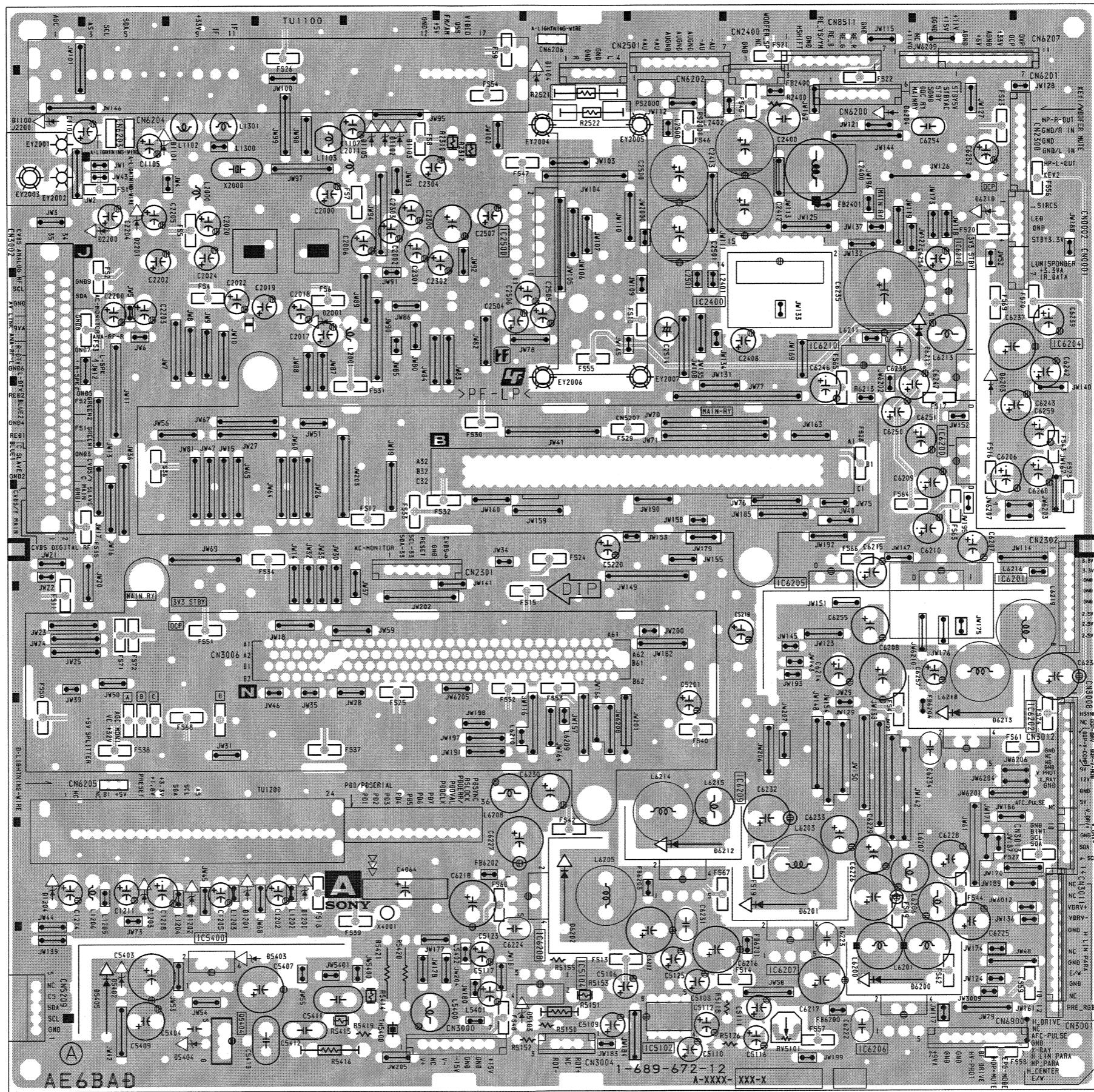
8

9

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11

~ A Printed Wiring Board Conductor side A ~



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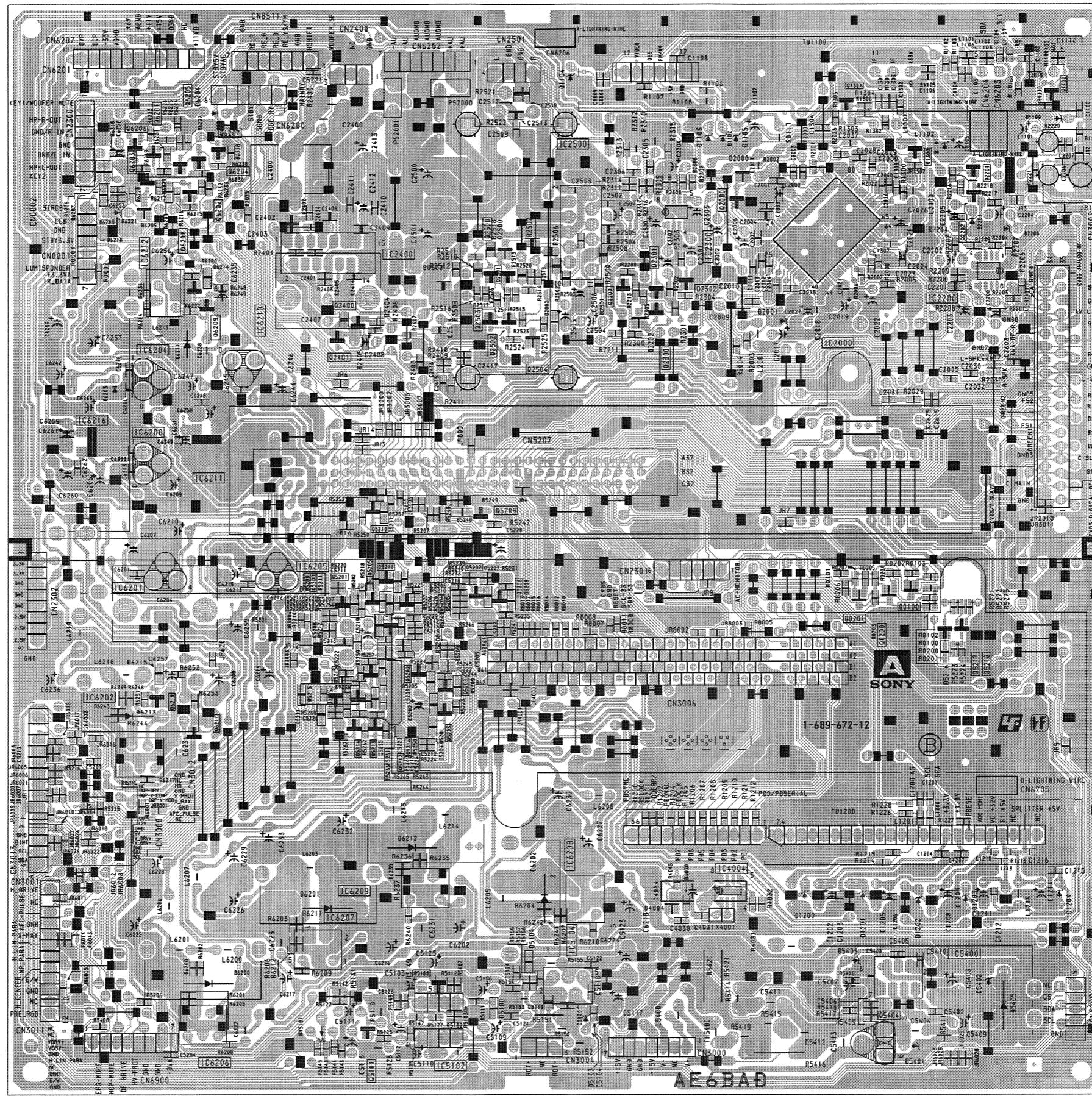
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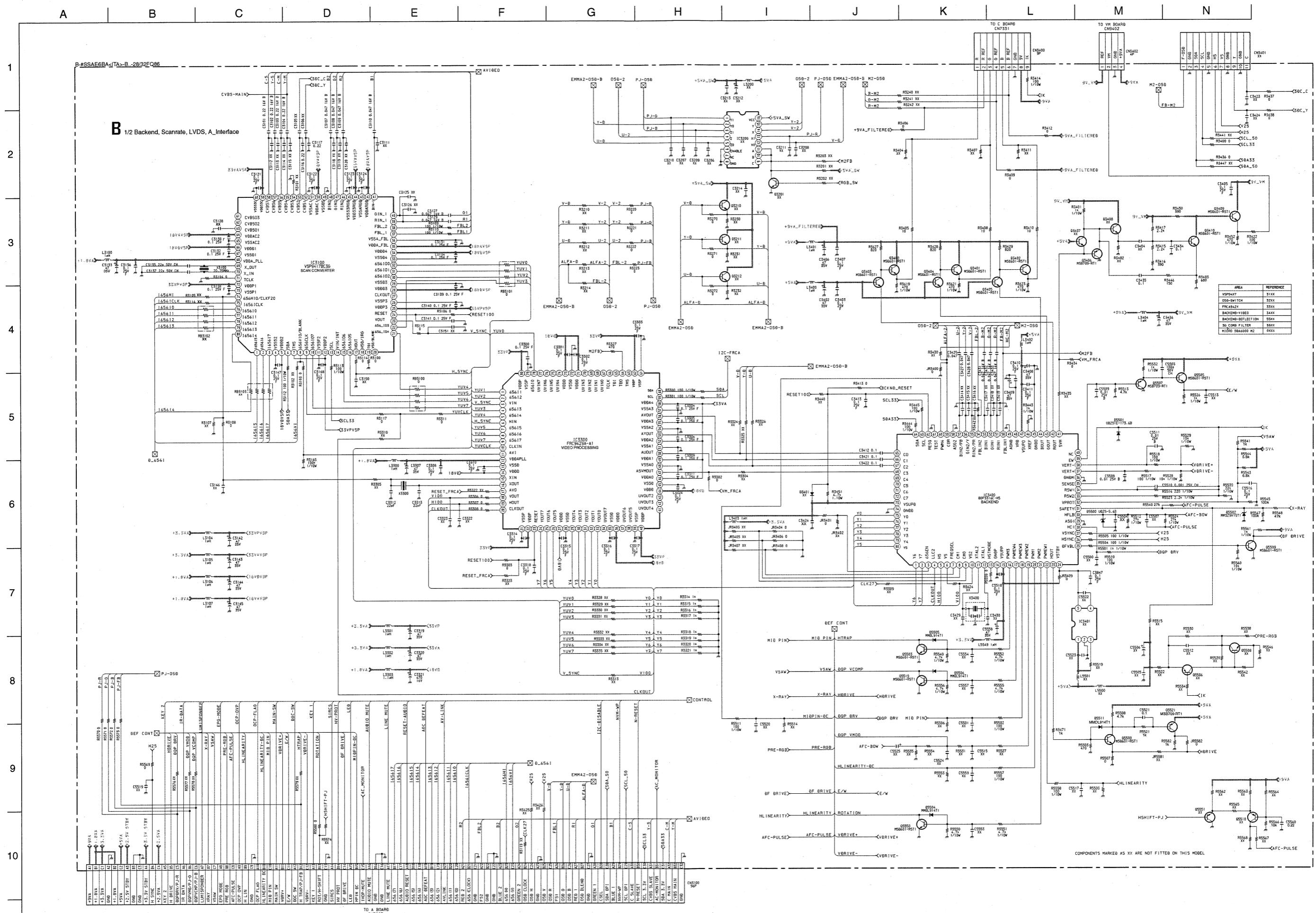
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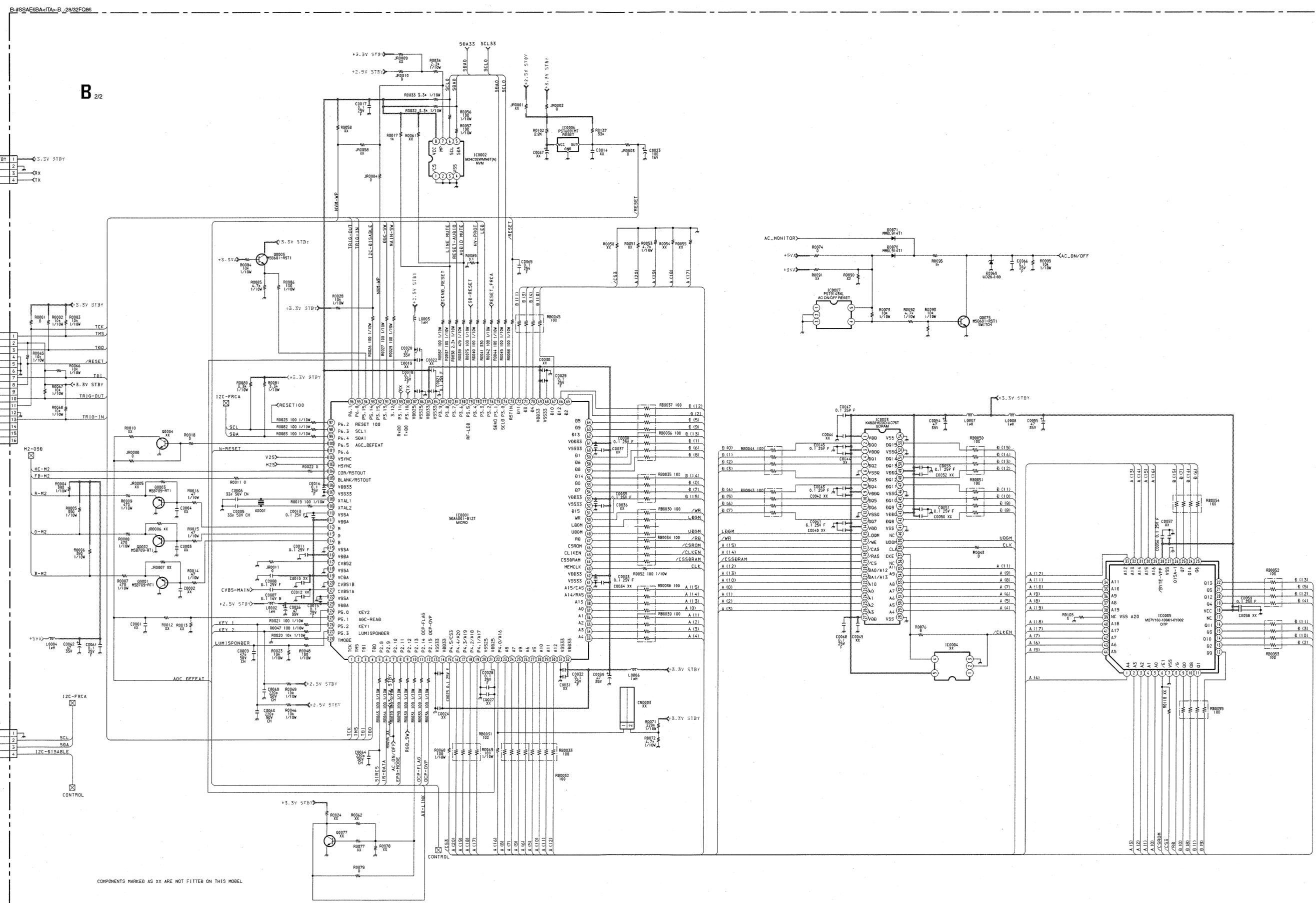
~ A Printed Wiring Board Conductor side B ~





~ B Board Schematic Diagram [Backend,Scanrate,LVDS,A_Interface] Page 1/2 ~

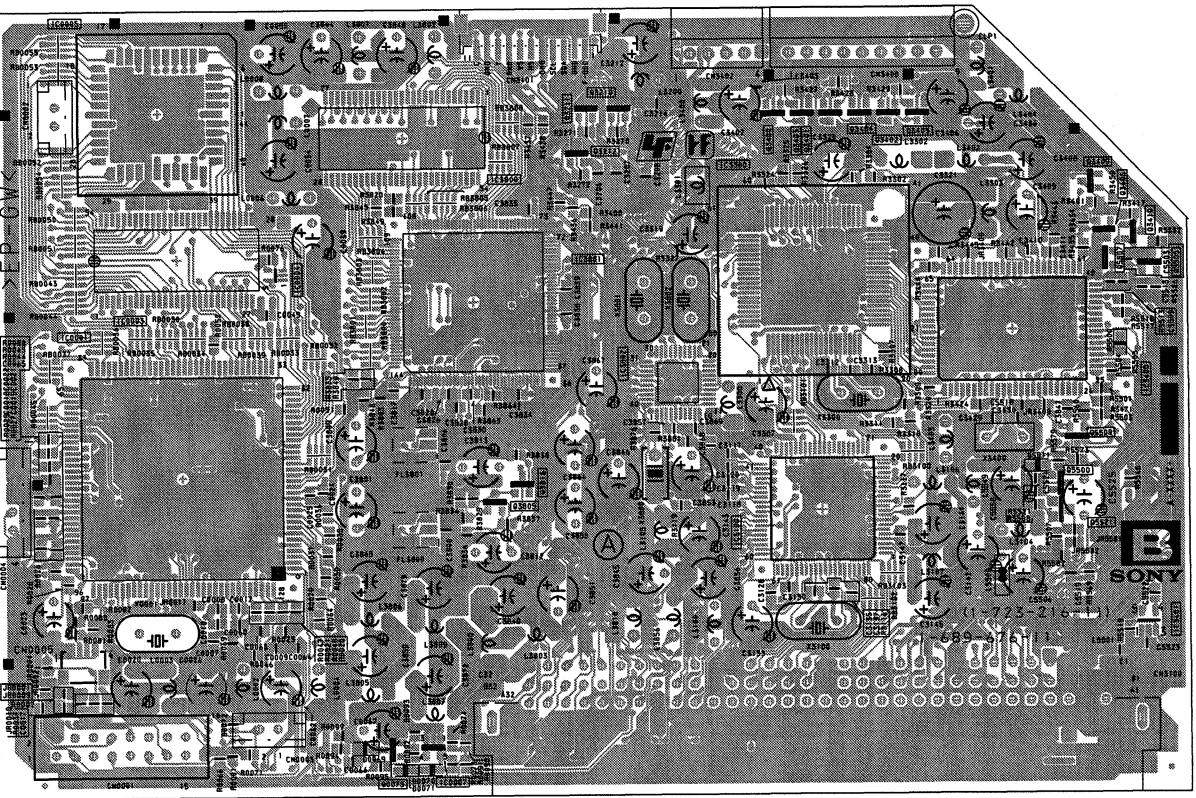
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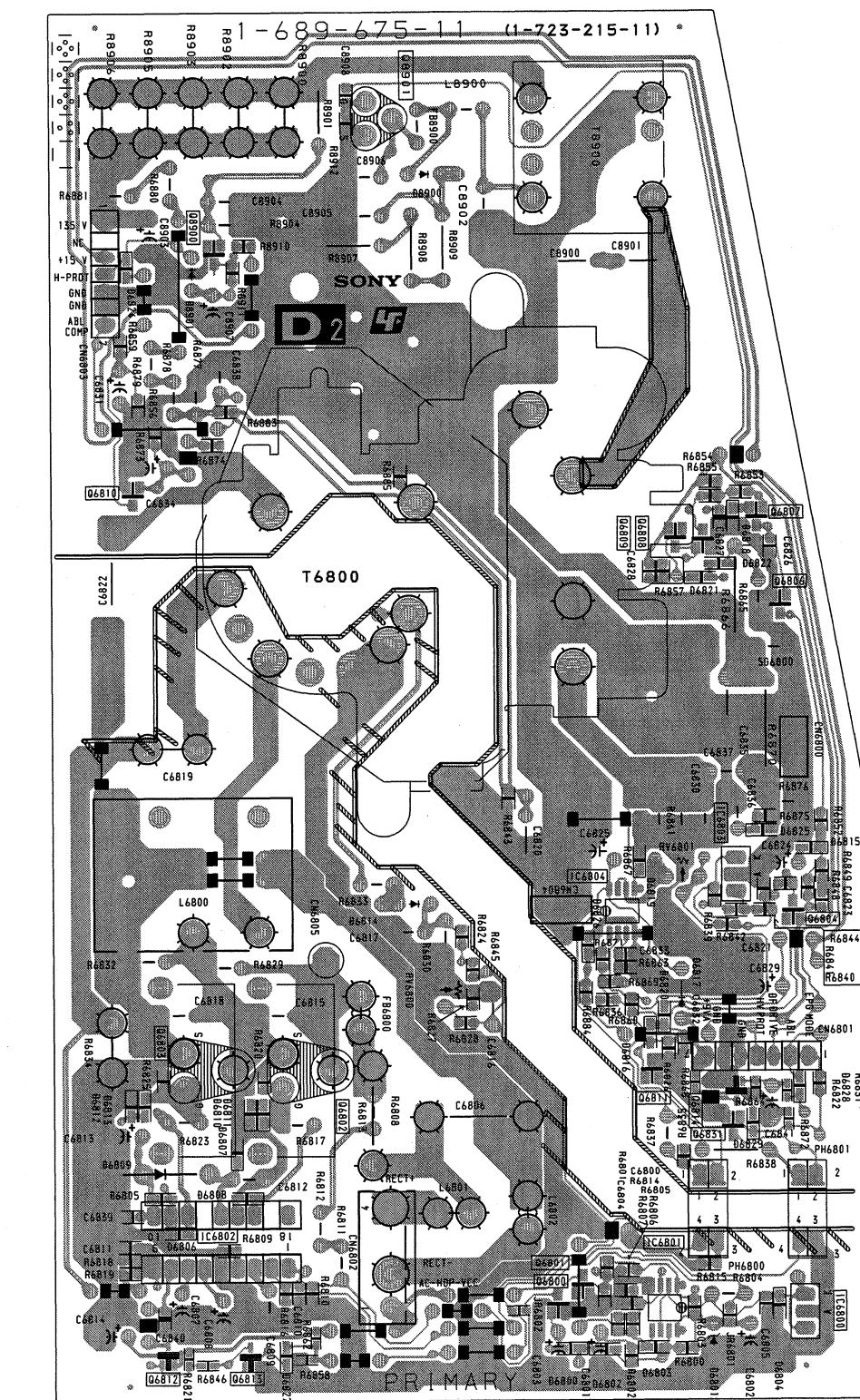
~ B Board Schematic Diagram [Backend, Scanrate, LVDS, A_Interface] Page 2/2 ~

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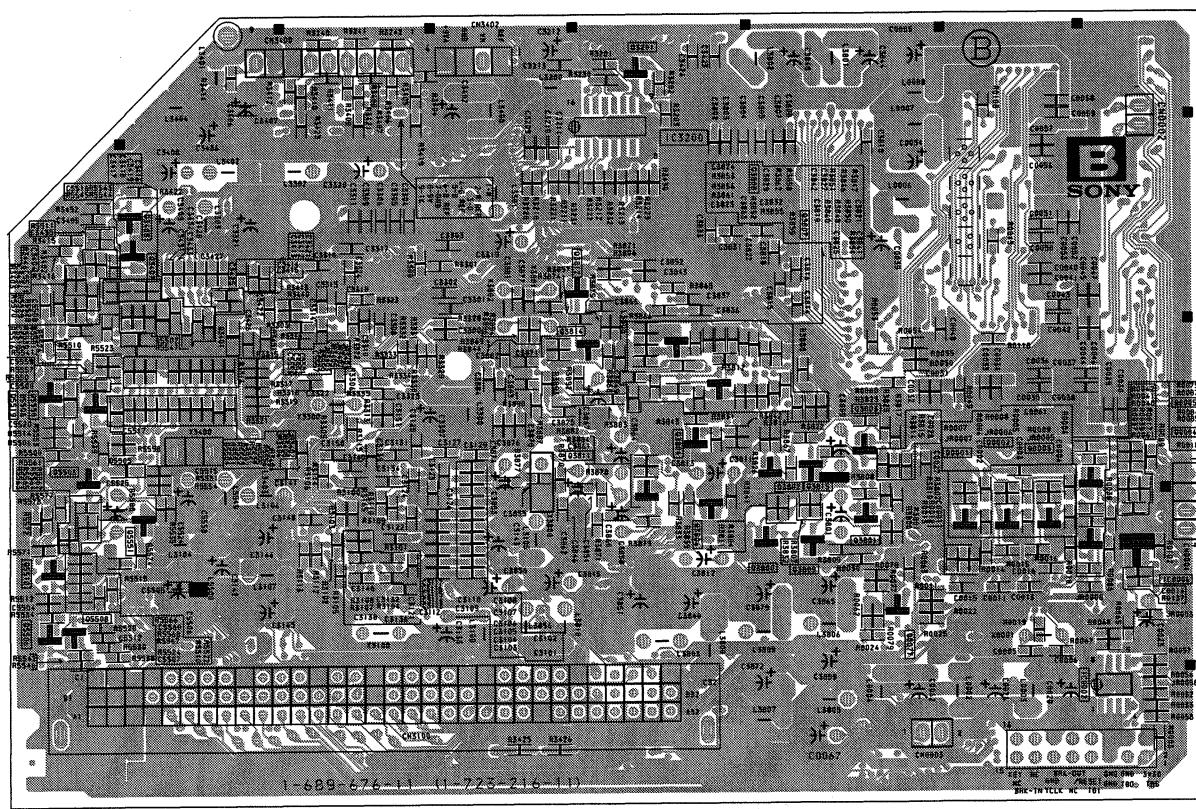
~ B Printed Wiring Board Conductor side A ~



~ D2 Printed Wiring Board Conductor side ~



~ B Printed Wiring Board Conductor side B ~



A | B | C | D | E | F | G | H | I | J | K | L | M | N

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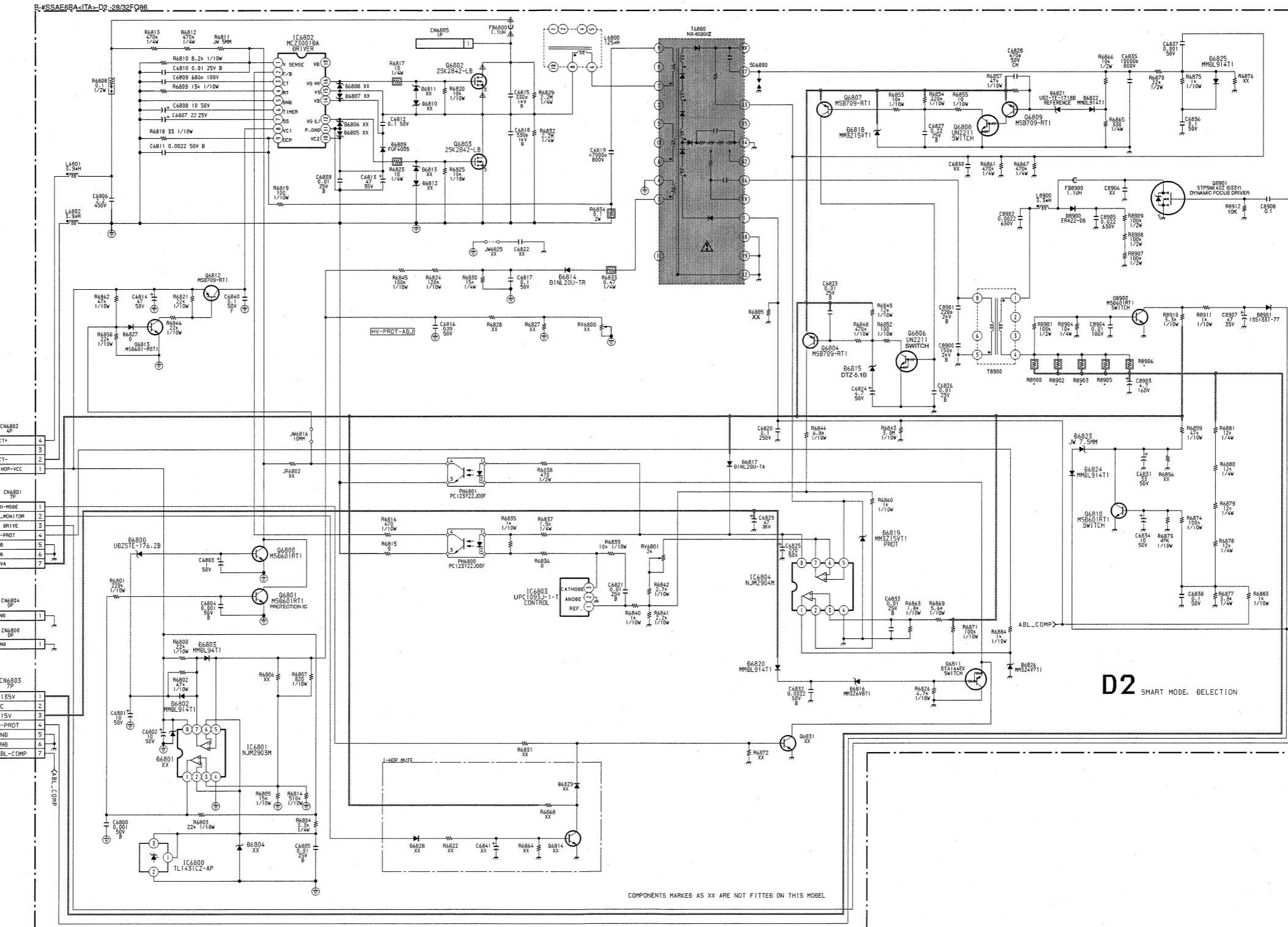
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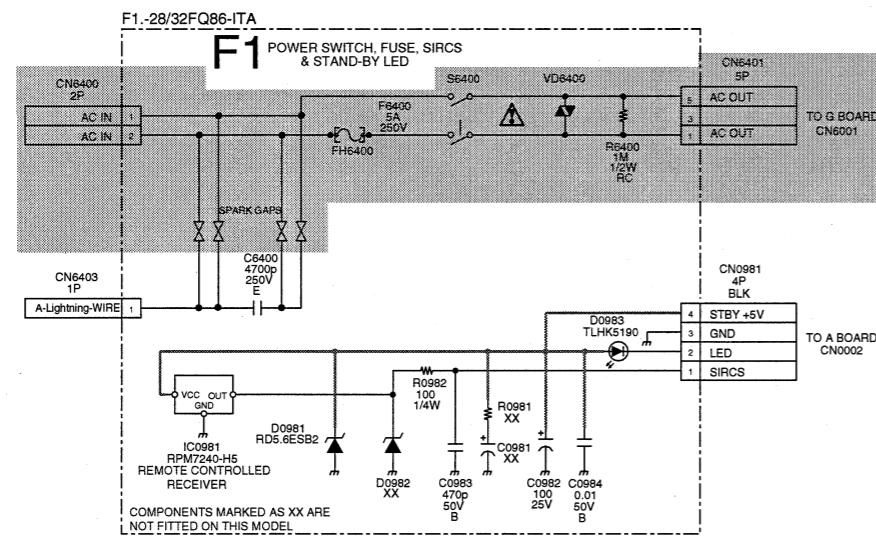
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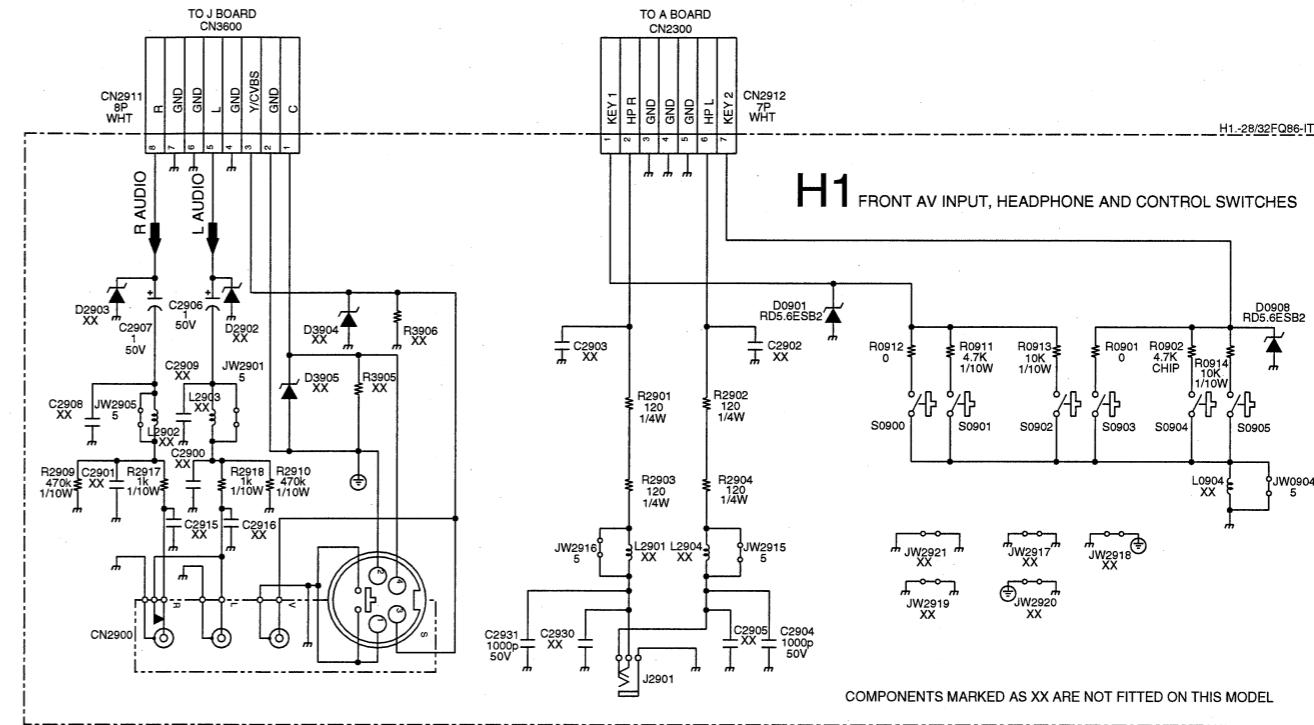
~ D2 Board Schematic Diagram [Smart Mode Deflection] ~

A | B | C | D | E | F | G | H | I | J | K | L | M | N

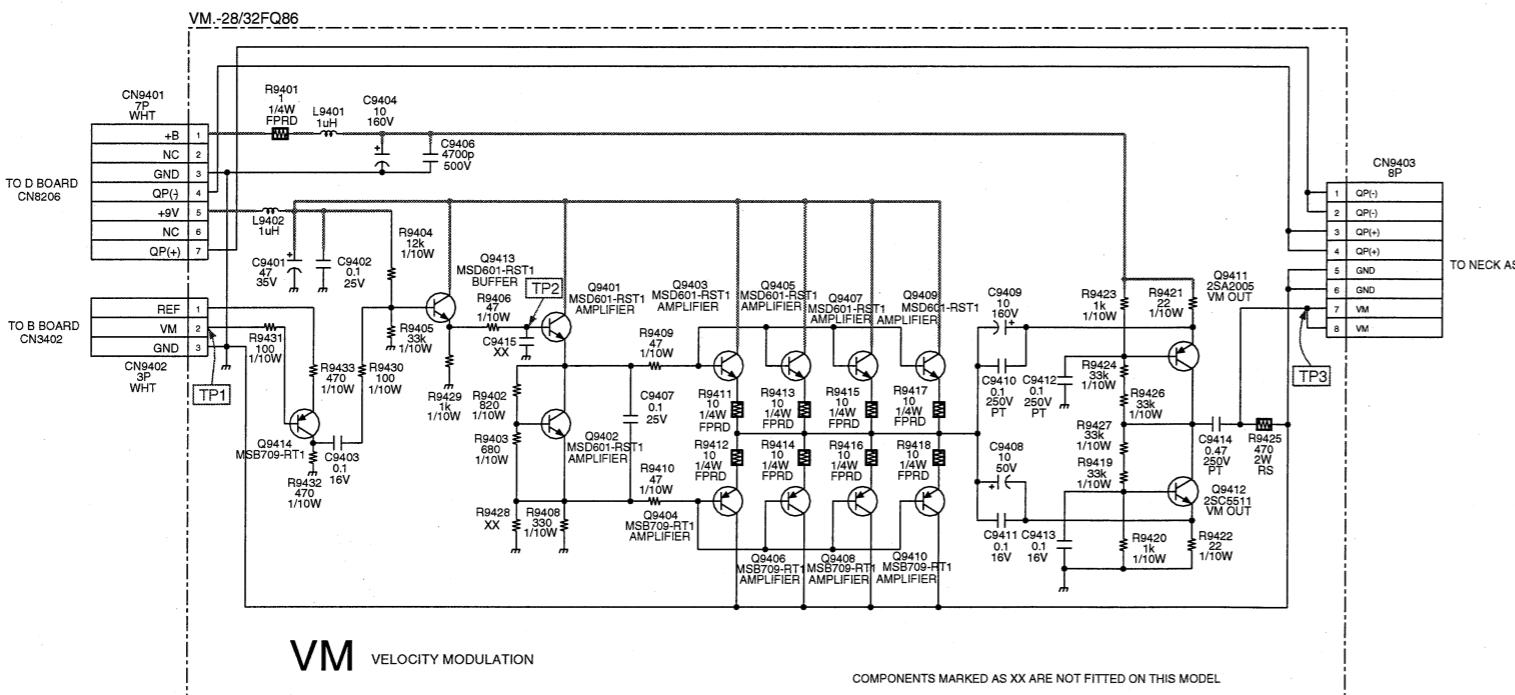
~ F1 Board Schematic Diagram [Power Switch, Fuse, SIRCS and Stand-By LED] ~



~ H1 Board Schematic Diagram [Front AV Input, Headphone and Control Switches] ~



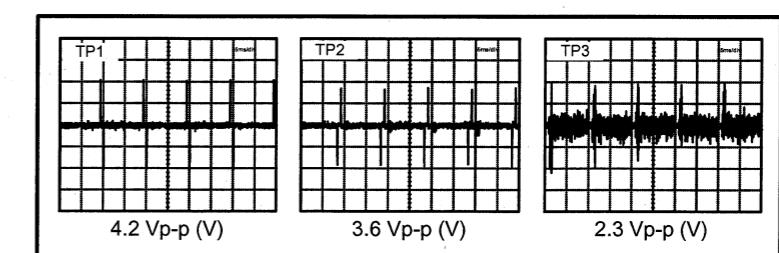
~ VM Board Schematic Diagram [Velocity Modulation] ~

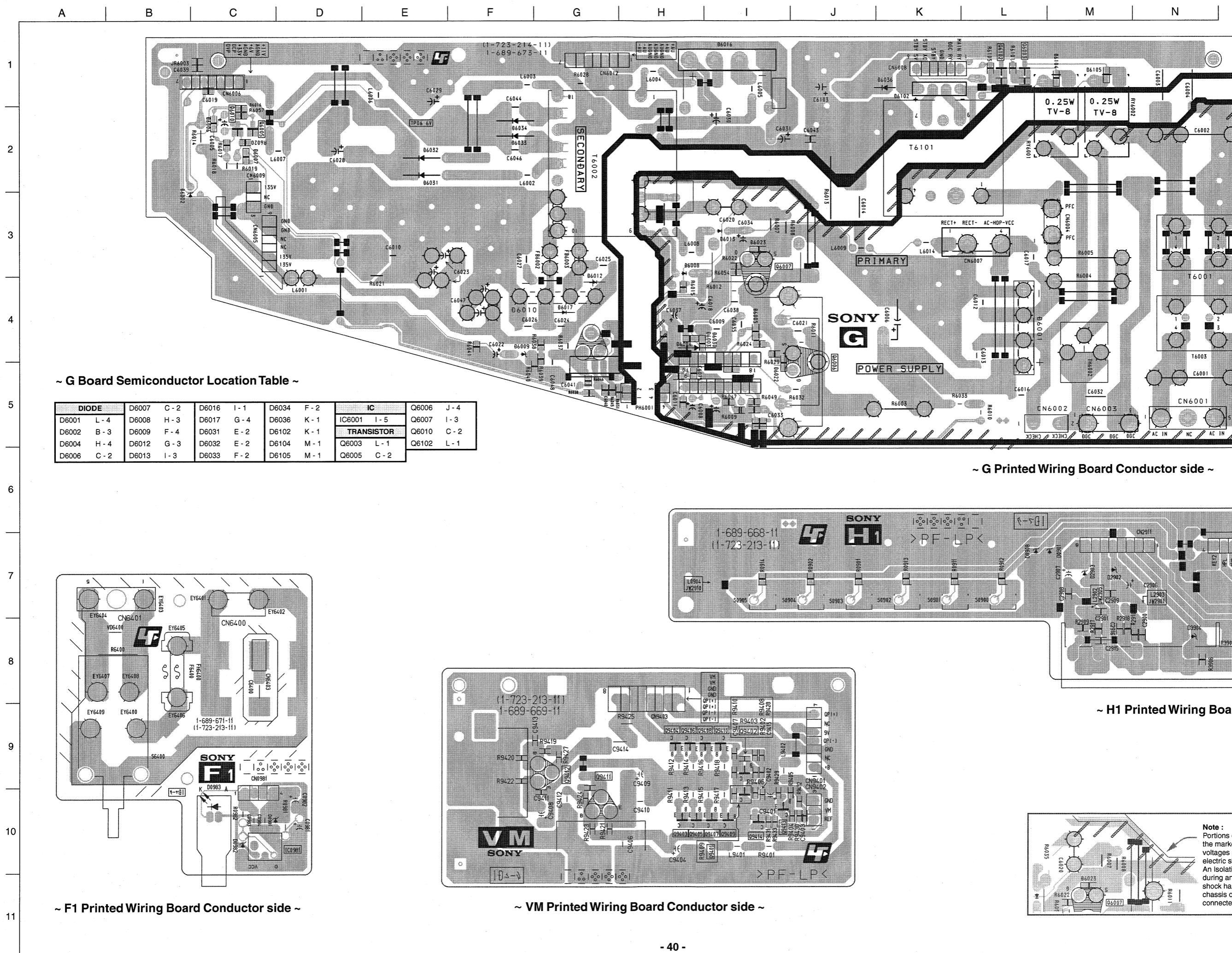


~ VM Board Voltage Table ~

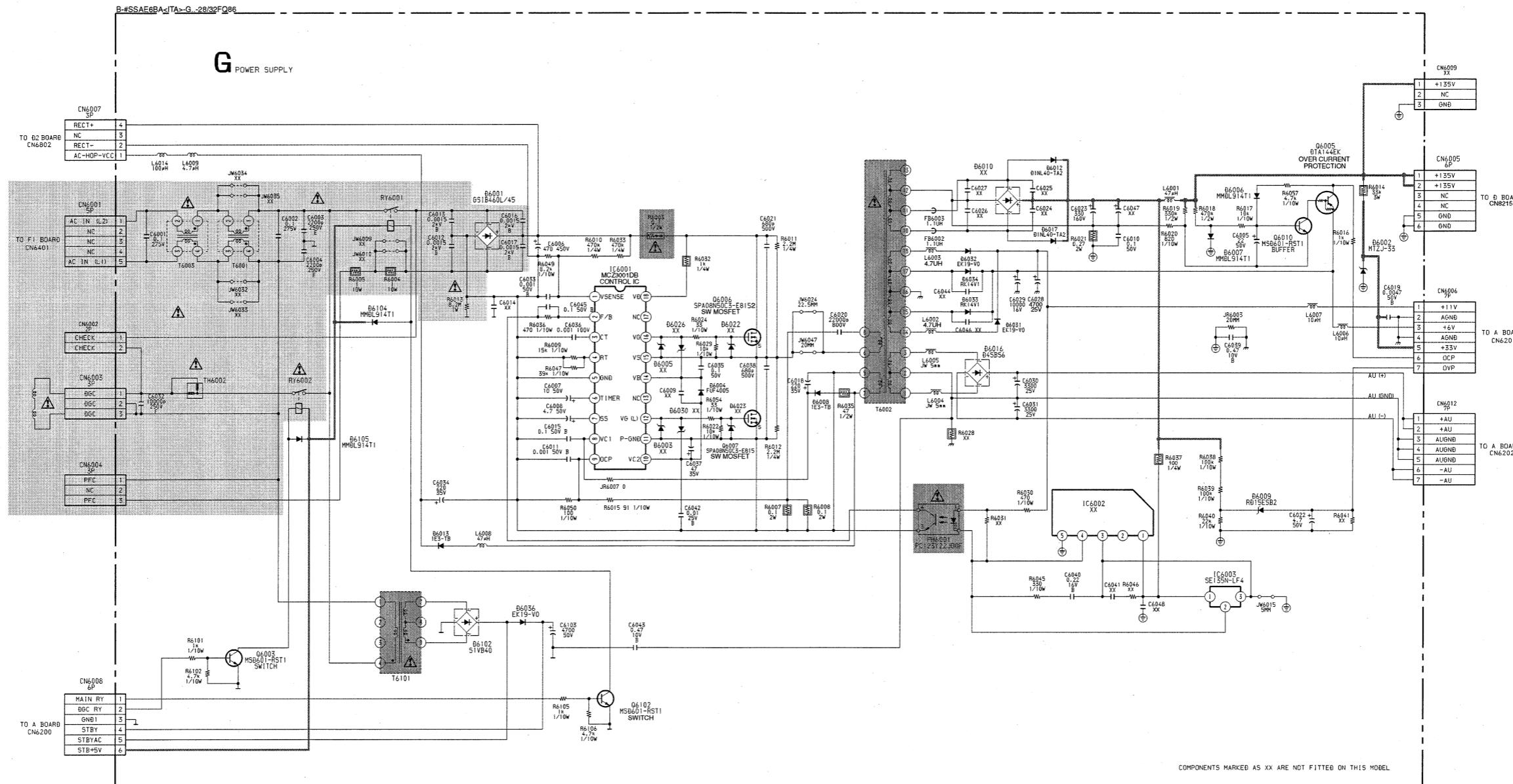
Ref	(e)(s)	(b)(g)	(c)(d)	Ref	(e)(s)	(b)(g)	(c)(d)
Q9401	5.1	5.7	8.9	Q9408	4.3	3.6	0
Q9402	3.4	4.3	5.1	Q9409	4.4	5.1	8.9
Q9403	4.4	5.1	8.9	Q9410	4.3	3.6	0
Q9404	4.3	3.6	0	Q9411	4.3	3.6	0
Q9405	4.4	5.1	8.9	Q9412	135.1	14.6	70.5
Q9406	4.3	3.6	0	Q9413	0.3	0.9	70.5
Q9407	4.4	5.1	8.9	Q9413	6.6	5.9	2.4

~ VM Board Waveforms ~





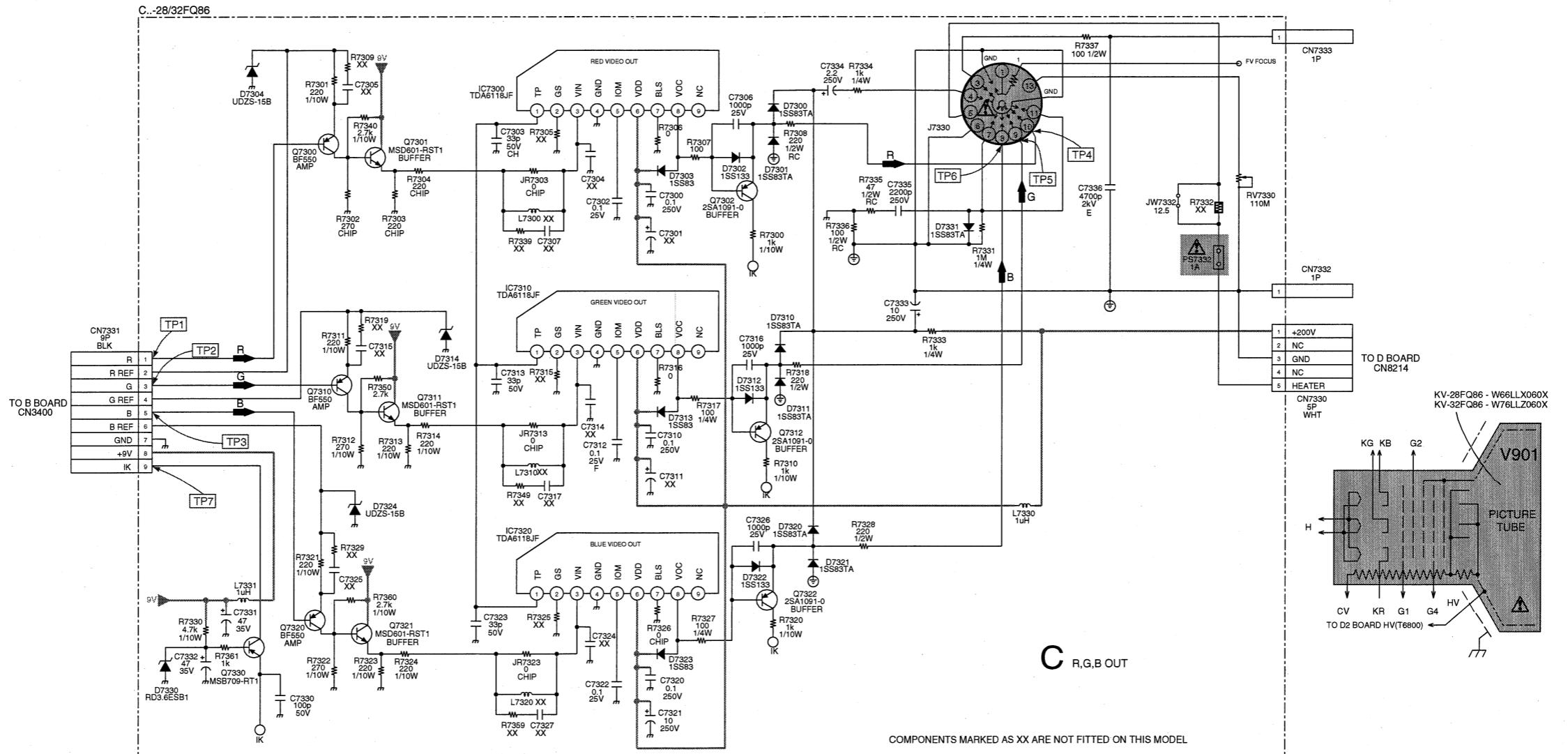
A | B | C | D | E | F | G | H | I | J | K | L | M | N



~ G Board Schematic Diagram [Power Supply] ~

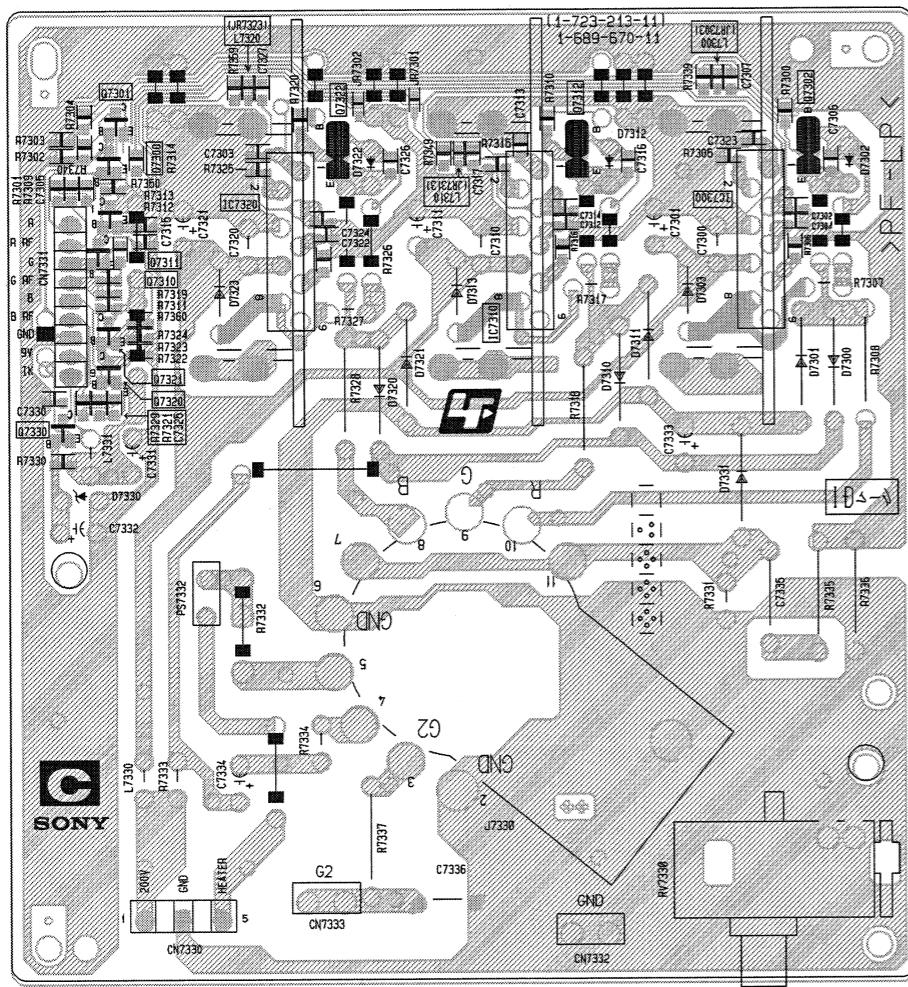
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A | B | C | D | E | F | G | H | I | J | K | L | M | N

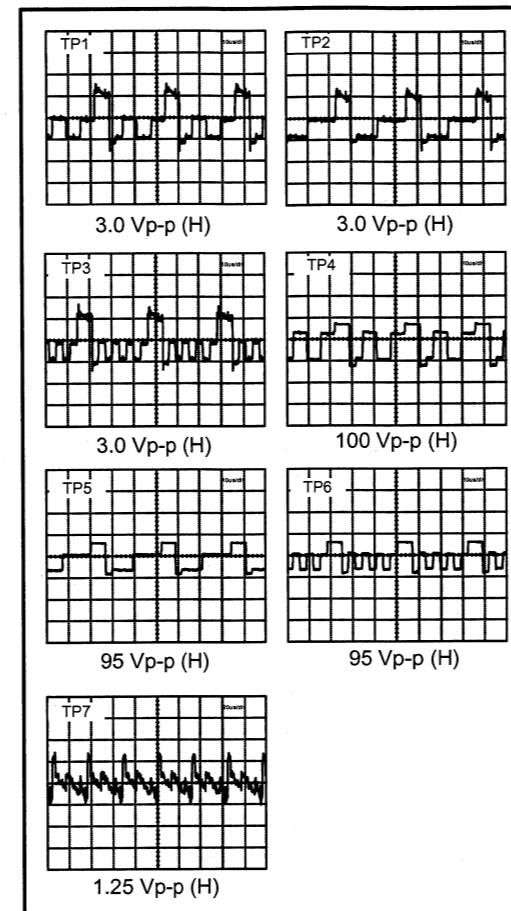


~ C Board Schematic Diagram [R-G-B Out] ~

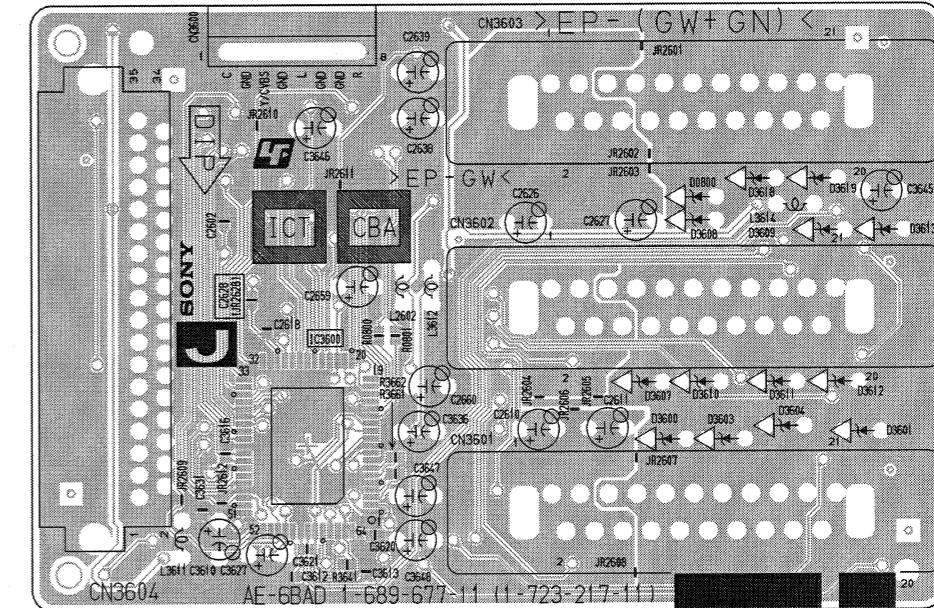
~ C Printed Wiring Board Conductor side ~



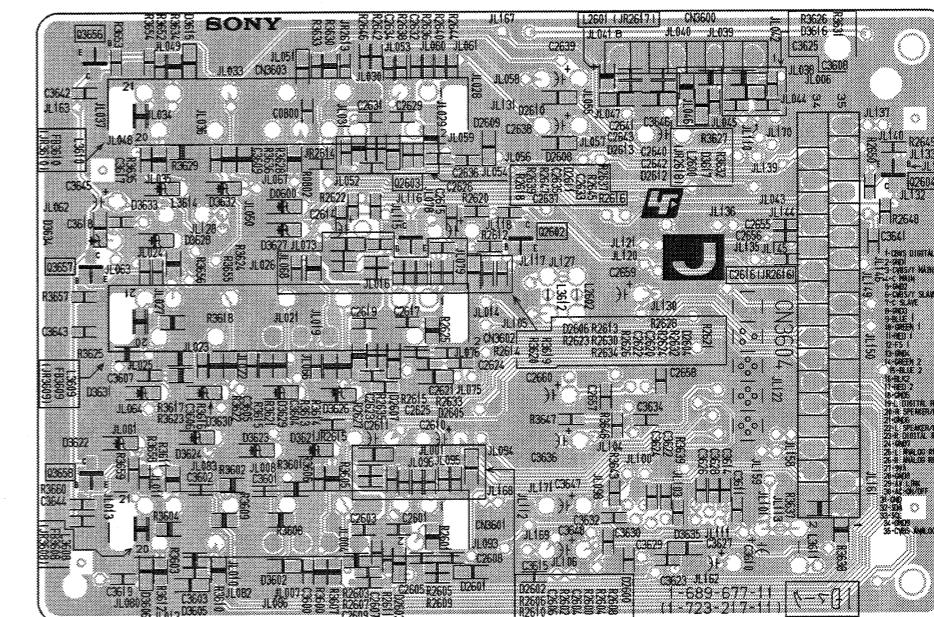
~ C Board Waveforms ~



~ J Printed Wiring Board Conductor side A ~



~ J Printed Wiring Board Conductor side B ~

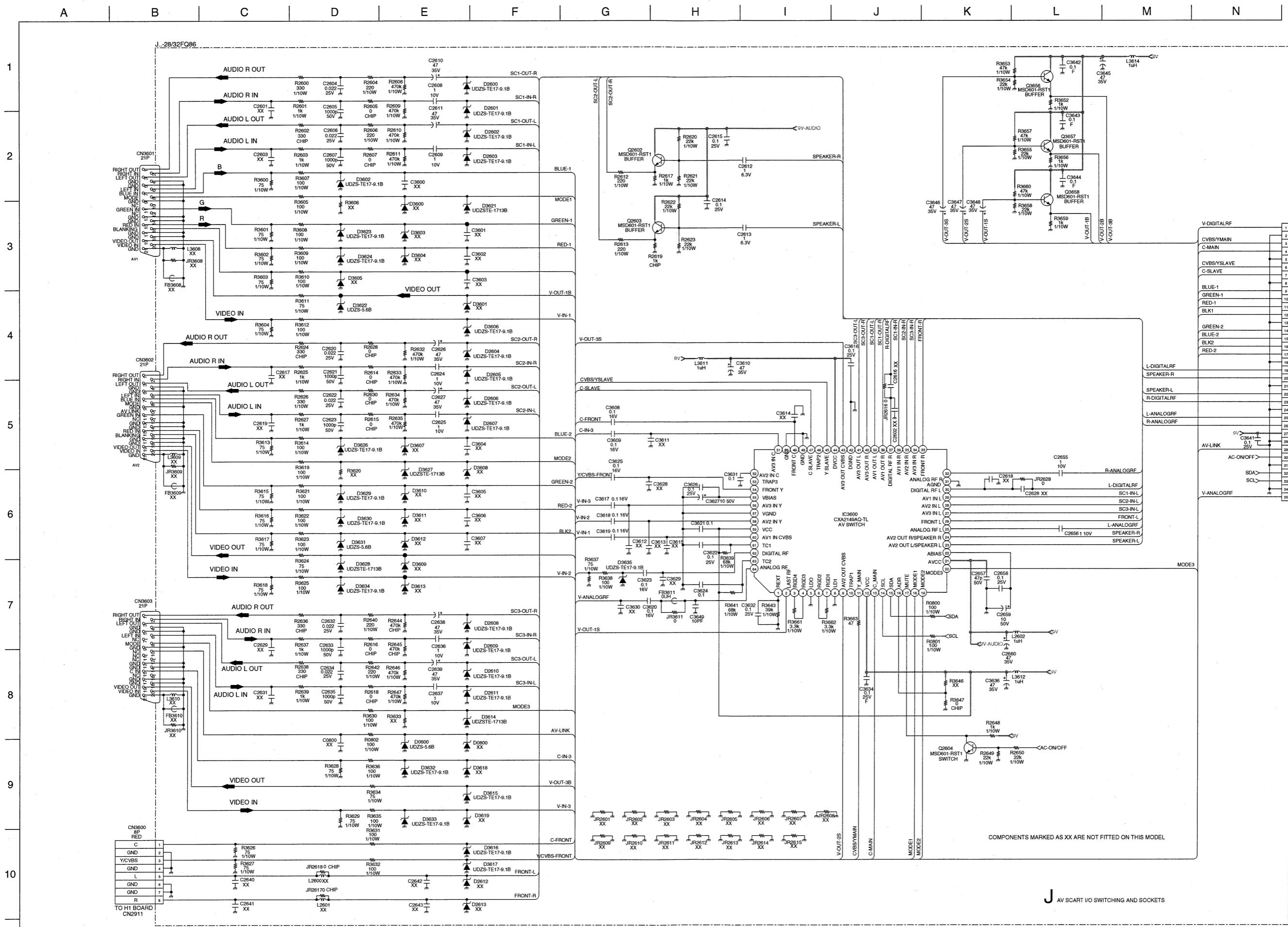


~ C Board Semiconductor Voltage Table ~

Ref	(e)(s)	(b)(g)	(c)(d)	Ref	(e)(s)	(b)(g)	(c)(d)
Q7300	7.5	6.9	2.4	Q7312	149.5	149.56	3.8
Q7301	1.8	2.4	8.9	Q7320	7.6	6.9	2.3
Q7302	145.9	147.8	4.0	Q7321	1.7	2.3	8.9
Q7310	7.6	7.0	2.2	Q7322	148.4	150.6	3.8
Q7311	1.6	2.2	8.9	Q7330	3.6	3.2	0

~ C Board IC Voltage Table ~

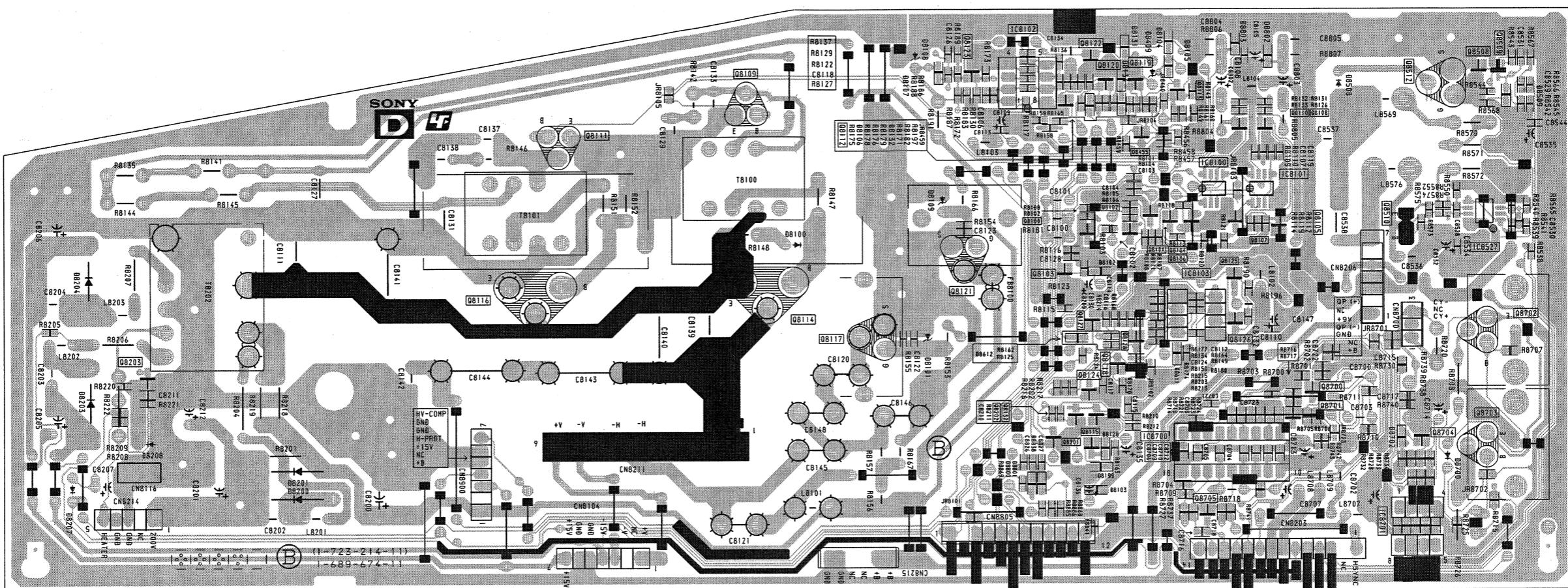
IC Voltage Table		
Ref No	Pin No	Voltage (V)
IC7300	1	5.3
	2	21.9
	3	1.9
	5	5.9
	6	205.4
	8	147.6
IC7310	1	5.1
	2	0
	3	1.7
	5	5.6
	6	205.4
	8	149.5
IC7320	1	5.1
	2	0
	3	1.8
	5	4.8
	6	205.4
	8	150.4



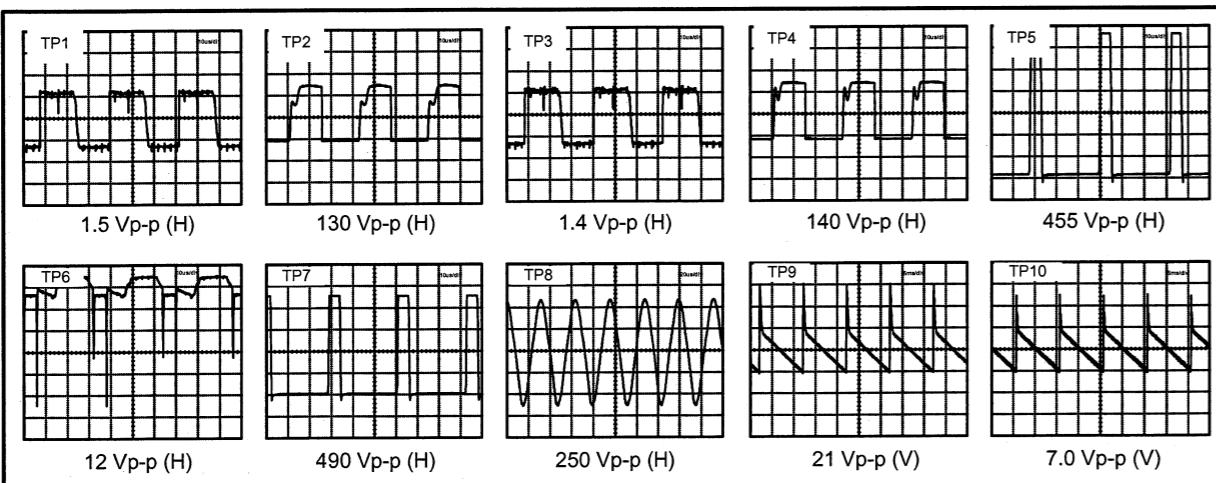
~ J Board Schematic Diagram [AV Scart I/O Switching and Sockets] ~

A | B | C | D | E | F | G | H | I | J | K | L | M | N |

~ D Printed Wiring Board Conductor side ~



~ D Board Waveforms ~

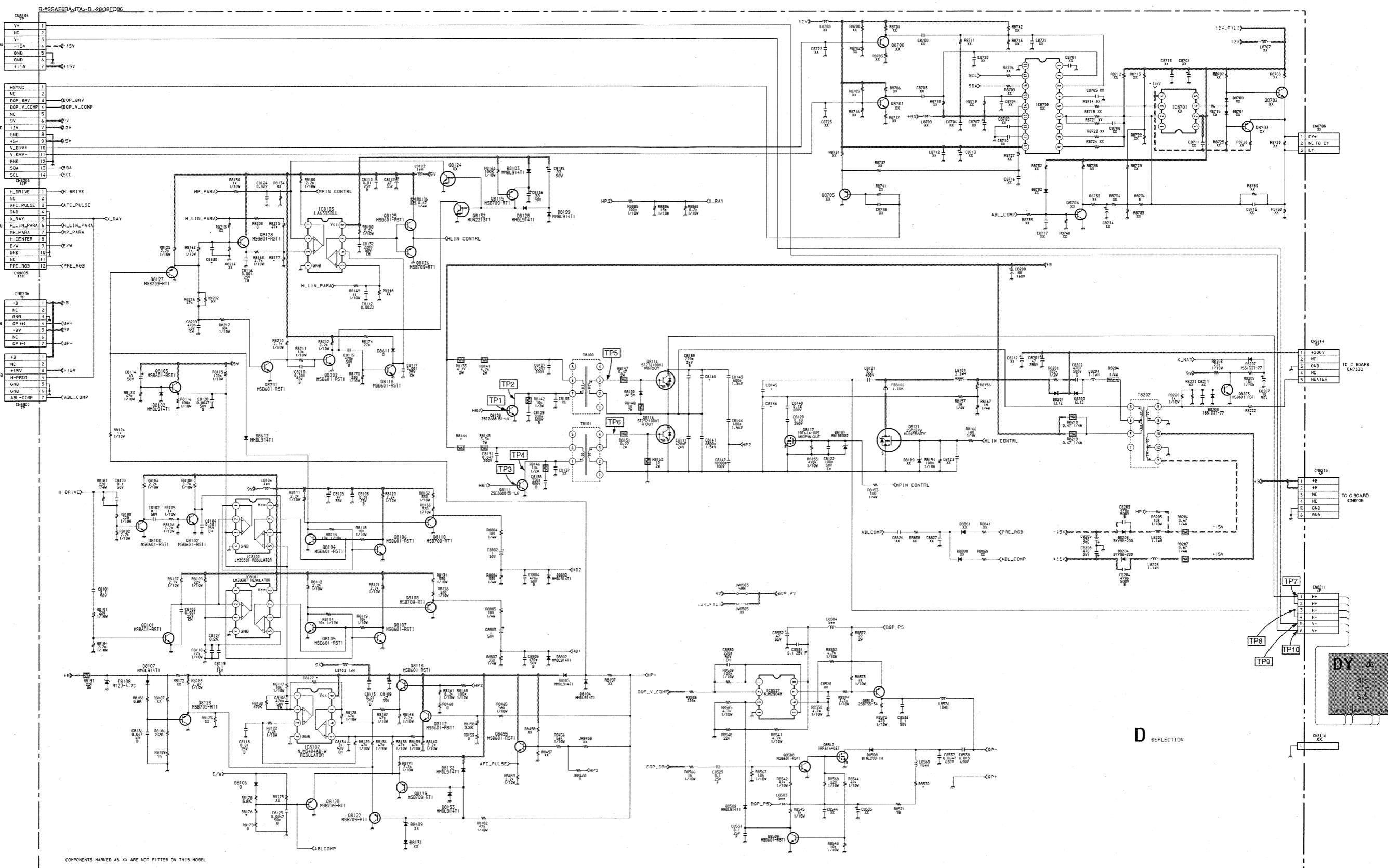


~ D Board IC Voltage Table ~

IC Voltage Table			IC Voltage Table		
Ref No	Pin No	Voltage (V)	Ref No	Pin No	Voltage (V)
IC8100	1	0.3	IC8102	1	3.8
	2	3.9		2	0.4
	3	3.9		3	0.4
	5	3.9		5	0.4
	6	3.6		6	0.4
	7	0.4		7	0.4
IC8101	1	0.3	IC8103	1	2.5
	2	3.9		2	1.7
	3	3.2		3	1.7
	5	3.2		5	0.9
	6	3.6		6	3.6
	7	3.5		7	1.1

~ D Board Semiconductor Voltage Table ~

Ref	(e)(s)	(b)(g)	(c)(d)	Ref	(e)(s)	(b)(g)	(c)(d)	Ref	(e)(s)	(b)(g)	(c)(d)
Q8100	0	0	3.0	Q8110	2.4	3.7	0	Q8125	1.2	1.1	8.9
Q8101	0	0	3.9	Q8111	0	0	62.9	Q8126	1.2	1.1	0
Q8102	0	1.0	3.6	Q8113	0.4	0	8.9	Q8127	1.1	1.5	0
Q8103	3.9	0	8.9	Q8115	8.6	8.9	0	Q8128	3.4	1.5	8.9
Q8104	0	0.3	3.7	Q8118	0	0	3.6	Q8132	0	0	3.6
Q8105	0	3.5	0.3	Q8119	1.2	0.5	0	Q8201	0	0.6	3.7
Q8106	0	0.3	3.9	Q8120	1.3	0.5	0	Q8202	0	0.9	3.7
Q8107	0	0.3	3.9	Q8121	0	1.2	135.2	Q8455	1.2	1.7	8.9
Q8108	2.4	0.3	0	Q8122	0.5	1.4	0	Q8510	8.1	7.5	0.4
Q8109	0	0	58.0	Q8123	0.5	1.3	0	Q8512	0	5.3	32.6



5-4. SEMICONDUCTORS

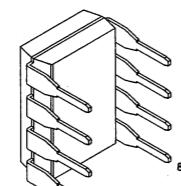
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1SS83
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D1NL20U-TR
D1NL40-TA2
EL1Z
ERA22-08
GP08D
FUF4005
H2S9.1NB2
MTZJ-33B
MTZJ-4.7C

RD15ES-B2
RD39ES-B2
RD3.6ES-B2
RD5.6ESB2
RK14V1

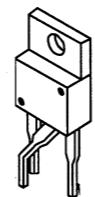
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ANODE

BYV98-200-RAS 15/12
CATHODE
ANODE

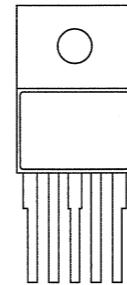
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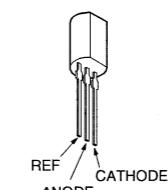
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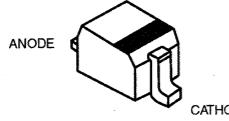
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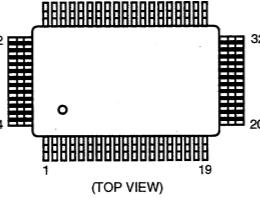
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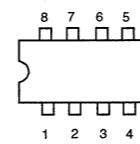
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MM3Z6V8T1
MM3Z9V1ST1
MM3Z15VT1
MMDL914T1
UDZSTE-1713B
UDZSTE-1718B
UDZSTE-173.9B
UDZSTE-175.6B
UDZSTE-176.2B
UDZSTE-179.1B
UDZSTE-17-7.5B



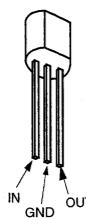
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CXA2149AQ-TL



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LM358N



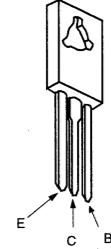
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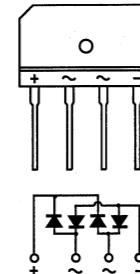
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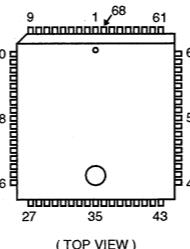
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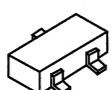
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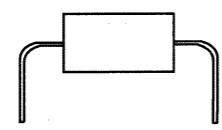
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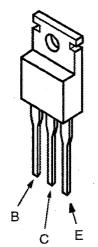
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M1MA152WA-T1
UN2111



D2S4MF

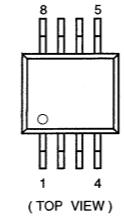


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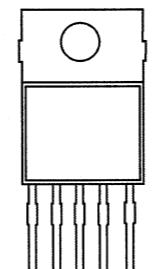
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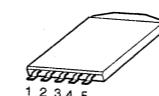


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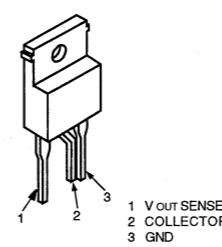
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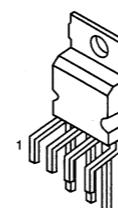
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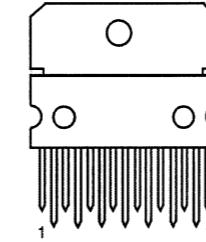
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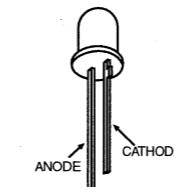
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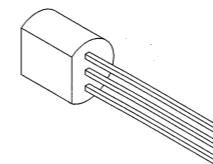
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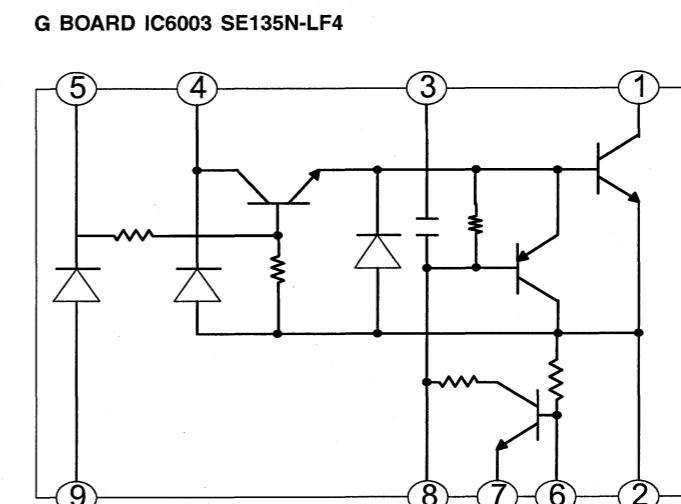
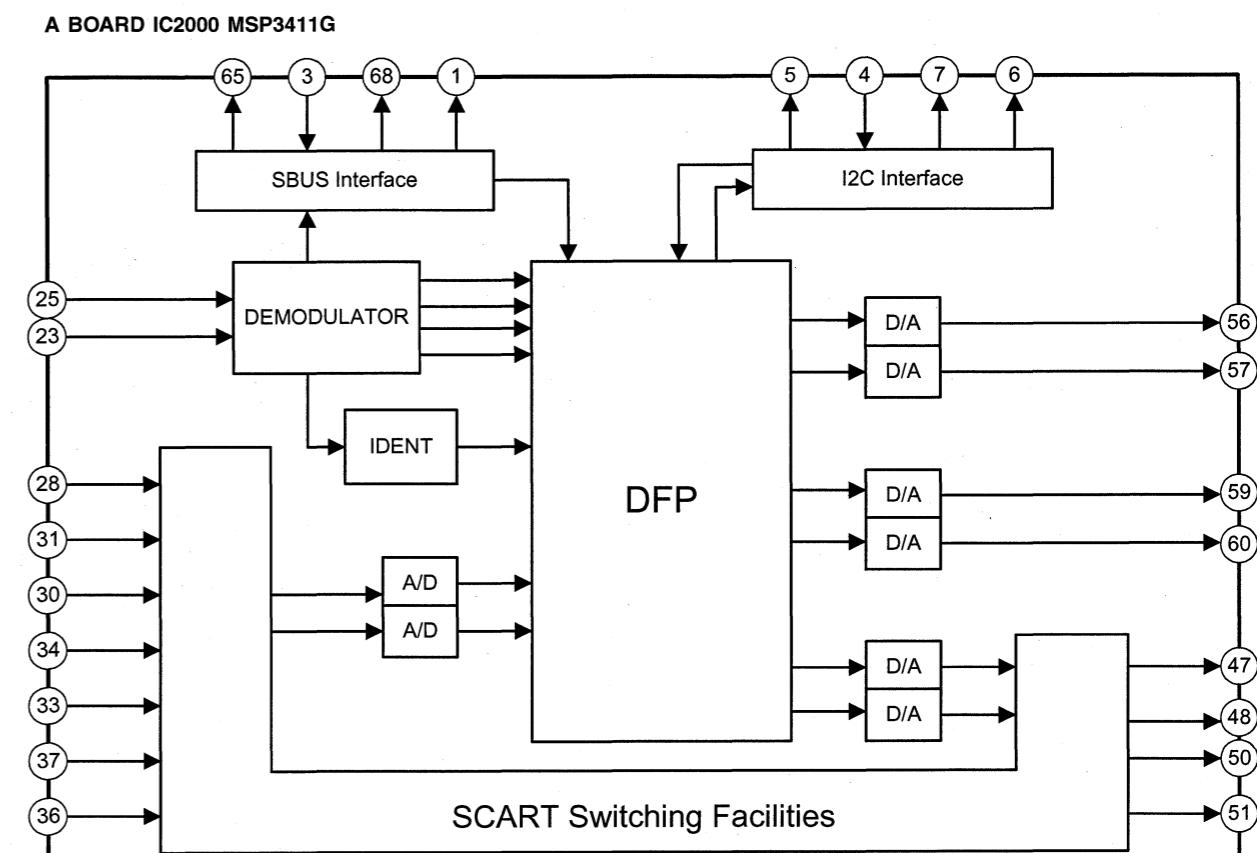
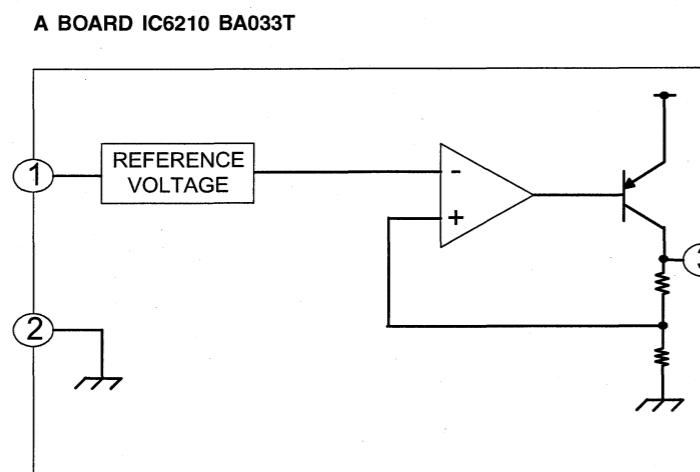
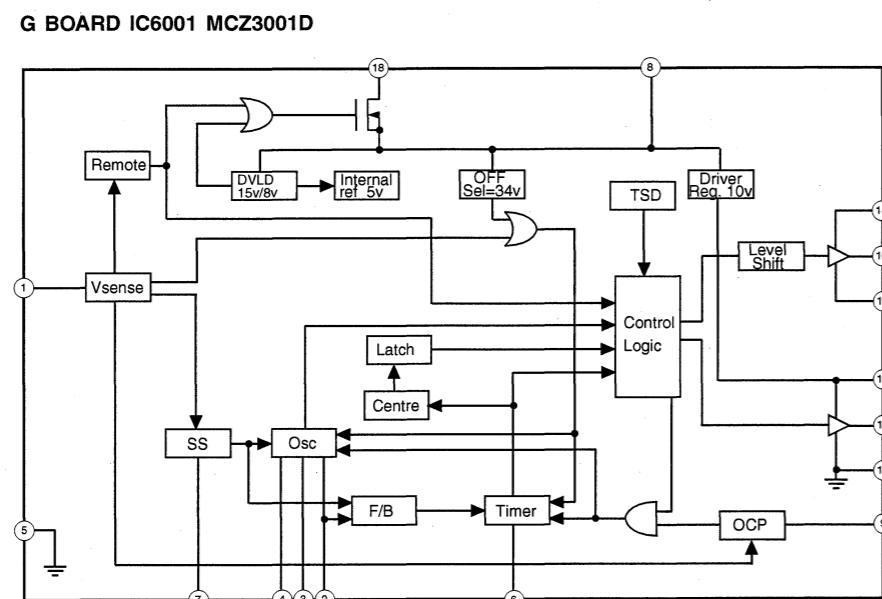
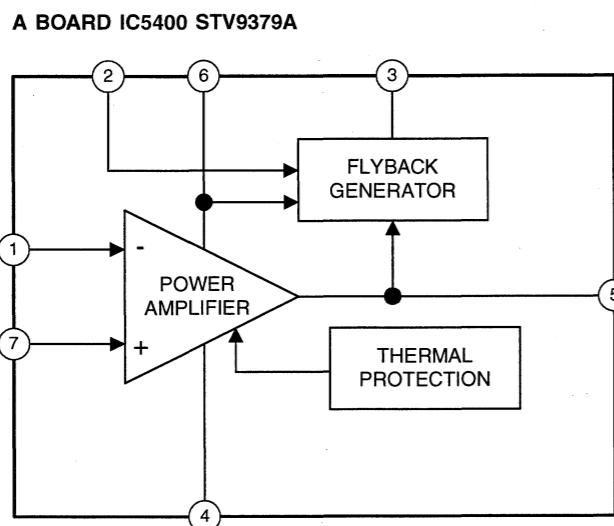
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5-5. IC BLOCK DIAGRAMS

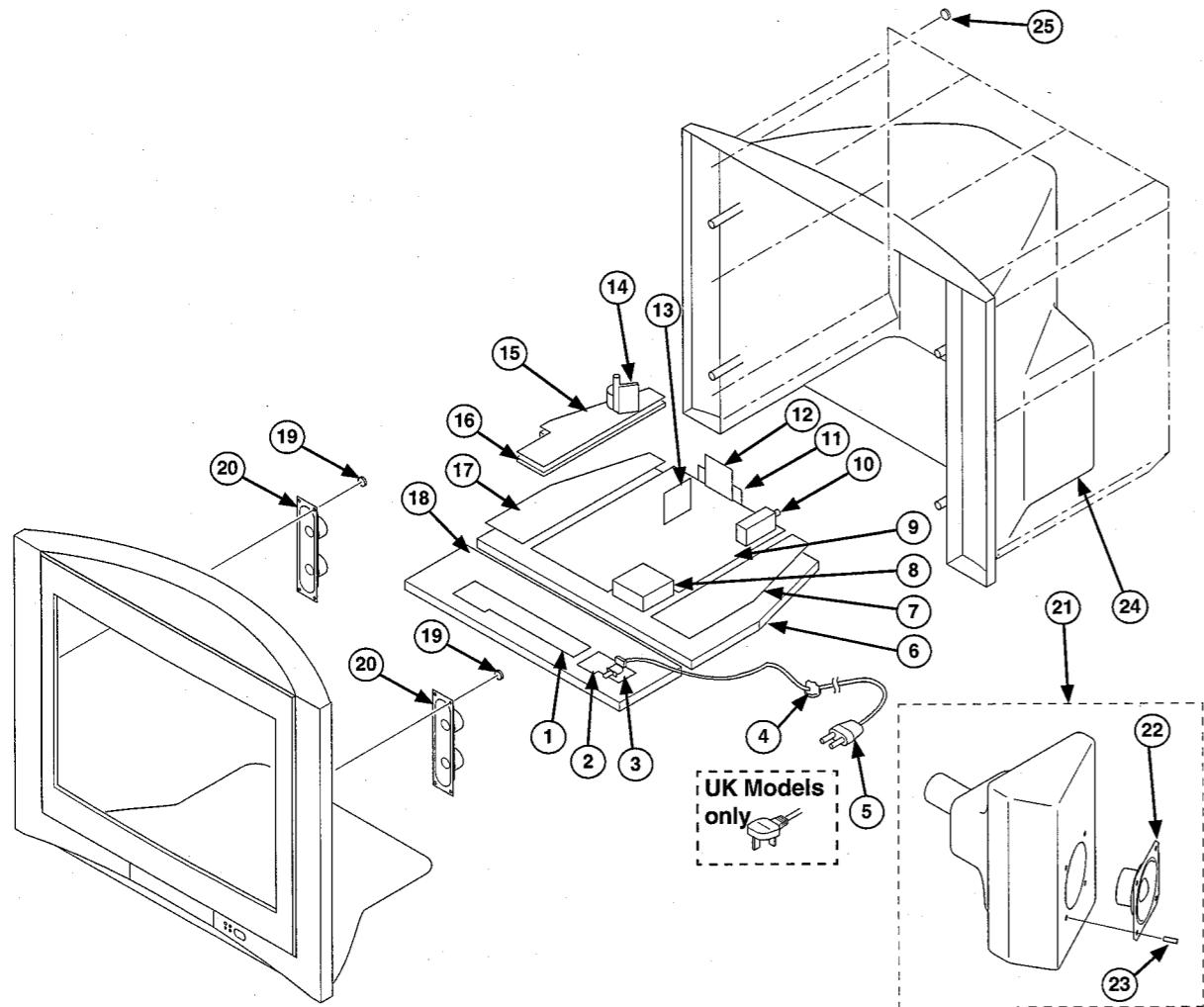


SECTION 6 EXPLODED VIEWS

NOTE :

- Items with no part number and no description are not stocked because they are seldom required for routine service.
- The construction parts of an assembled part are indicated with a collation number in the remarks column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

6-1. CHASSIS

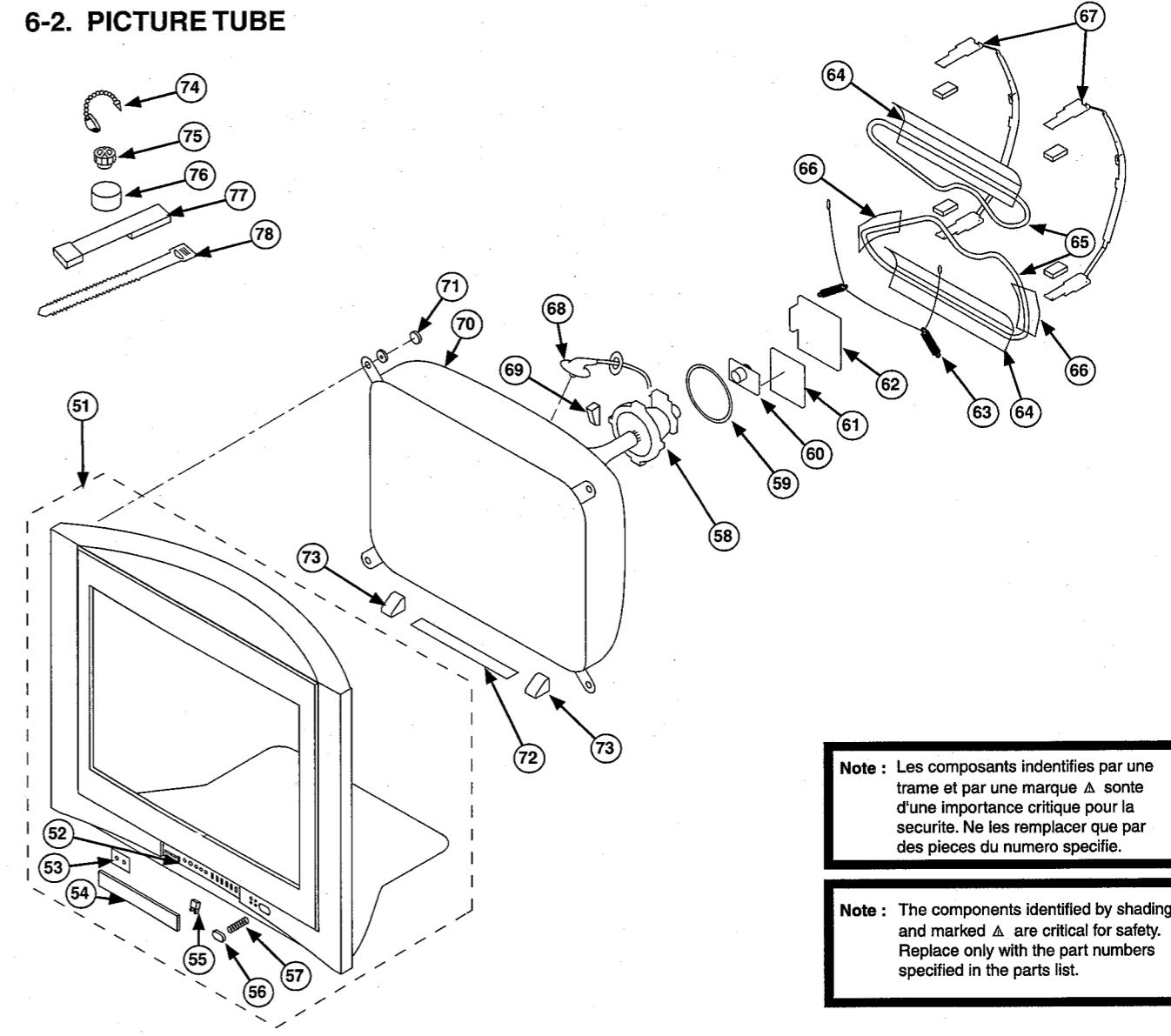


REF.NO.	PART.NO	DESCRIPTION	REMARK
1	*A-1405-609-A	H1 BOARD COMPLETE	
2	*A-1405-611-A	F1 BOARD, COMPLETE	
3	△ 1-571-433-21	SWITCH, PUSH (AC POWER)	
4	*4-202-531-01	AC CORD LOCK (SC)	
5	△ *1-783-083-11	CORD, POWER (WITH FILTER)	
6	*4-095-739-02	BRACKET, MAIN	
7	A-1302-963-A	G BOARD, COMPLETE	
8	1-456-510-11	COIL, CHOKE 48.5MH	
9	*A-1302-961-A	A BOARD, COMPLETE (KV-28FQ86B KV-32FQ86B)	
	*A-1302-962-A	A BOARD, COMPLETE (KV-28FQ86E KV-32FQ86E/K)	
	*A-1302-972-A	A BOARD, COMPLETE (KV-32FQ86U)	
10	8-598-529-10	FRONTEND BTF-EU611 (KV-32FQ86U)	
	8-598-533-10	FRONTEND BTF-EC411 (KV-28FQ86E, KV-32FQ86E/K)	
	8-598-535-20	FRONTEND BTF-EF411 (KV-28FQ86B, KV-32FQ86B)	
11	*4-100-801-01	SUPPORTER, J	
12	*A-1405-623-A	J BOARD, COMPLETE	
13	*A-1302-965-A	B BOARD, COMPLETE	

Note : Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

6-2. PICTURE TUBE



Note : Les composants identifiés par une trame et par une marque Δ sont d'une importance critique pour la sécurité. Ne les remplacer que par des pièces du numéro spécifié.

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK
51	X-4043-188-1	BEZNET ASSY KV-28FQ86B/E	52-57
	X-4043-184-1	BEZNET ASSY KV-32FQ86B/E/K	52-57
	X-4041-364-2	BEZNET ASSY KV-32FQ86U	52-57
52	*4-087-533-01	MULTIBUTTON	
53	4-087-530-01	GUIDE, LIGHT	
54	4-093-827-01	DOOR (KV-28FQ86)	
	4-093-897-01	DOOR (KV-32FQ86)	
55	4-085-507-03	SPRING, DOOR	
56	4-087-527-01	POWER BUTTON	
57	4-204-426-01	SPRING	
58	△ 8-451-521-31	DEFLECTION YOKE (Y28RVC3-1.2) (KV-28FQ86)	
	△ 1-451-480-22	DEFLECTION YOKE (Y32RVC2) (KV-32FQ86)	
59	1-419-363-11	COIL, NA ROTATION	
60	△ 8-453-011-11	NECK ASSY, (NA299-M)	
61	*A-1405-620-A	VM BOARD, COMPLETE	
62	*A-1405-610-A	C BOARD, COMPLETE	
63	4-369-318-21	SPRING, TENSION	
64	*4-203-390-11	CUSHION, DGC (KV-28FQ86)	
	*4-095-593-01	CUSHION, DGC (KV-32FQ86)	
65	△ 1-424-886-11	COIL, DEGAUSSING (KV-28FQ86)	
	△ 1-424-888-11	COIL, DEGAUSSING (KV-32FQ86)	
66	*4-392-534-21	CUSHION, DGC (KV-32FQ86)	
67	*4-204-812-02	HOLDER, DGC (25") (KV-28FQ86)	
	*4-204-768-02	HOLDER, DGC (29") (KV-32FQ86)	
68	△ 1-251-946-11	CAP ASSY, HIGH-VOLTAGE (KV-32FQ86)	
	△ 1-251-946-21	CAP ASSY, HIGH-VOLTAGE (KV-28FQ86)	
69	3-704-495-03	SPACER, DY	
70	△ 8-735-099-05	PICTURE TUBE (W66LLX060X) KV-28FQ86	
	△ 8-735-079-05	PICTURE TUBE (W76LLZ060X) KV-32FQ86	
71	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER	
72	4-204-666-01	SCREW, BLOTTING	
73	*4-206-160-01	SUPPORT CRT (KV-28FQ86)	
	*4-087-590-03	SUPPORT CRT (KV-32FQ86)	
74	4-308-870-00	CLIP, LEAD WIRE	
75	1-452-094-00	MAGNET, ROTATABLE DISK; 15MM Ø	
76	1-452-032-00	MAGNET, DISK; 10MM Ø	
77	X-4387-214-1	PERMALLOY, CORRECTION	
78	3-701-007-00	BAND, BINDING	

SECTION 7

ELECTRICAL PARTS LIST

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Note : Items marked ** are not stocked since they are seldom required for routine service.
 Some delay should be anticipated when ordering these items.
 Parts indicated (XX) on the Schematic Diagram are not used in this model and
 therefore do not appear in the Parts List.

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
	* A-1302-547-A	D2 Board Complete KV-28FQ86		C8903	1-107-635-11	ELECT	4.7UF 20.0% 160V
	* A-1302-549-A	D2 Board Complete KV-32FQ86		C8904	1-137-150-11	FIILM	0.01UF 5.0% 100V
		D2 Board Common Parts		C8905	1-136-205-11	MYLAR	0.022UF 5.0% 630V
				C8907	1-126-947-11	ELECT	47UF 20.0% 35V
				C8908	1-216-809-11	METAL CHIP	100 5% 1/10W
							< CONNECTOR >
				CN6800	1-695-915-11	TAB (CONTACT)	
				CN6801	* 1-564-510-11	PLUG, CONNECTOR 7P	
				CN6802	1-817-917-11	PIN, CONNECTOR 3P	
				CN6803	* 1-564-510-11	PLUG, CONNECTOR 7P	
				CN6804	1-695-915-11	TAB (CONTACT)	
				CN6805	* 1-508-784-00	PIN, CONNECTOR (5MM PITCH) 1P	
							< DIODE >
				D6800	8-719-069-56	DIODE UDZSTE-176.2B	
				D6802	8-719-081-97	DIODE MMDL914T1	
				D6803	8-719-081-97	DIODE MMDL914T1	
				D6809	8-719-083-94	DIODE FUF4005	
				D6814	8-719-063-73	DIODE D1NL20U-TR	
				D6815	8-719-976-99	DIODE DTZ5.1B	
				D6816	8-719-081-98	DIODE MM3Z6V8T1	
				D6817	8-719-510-02	DIODE D1NS4	
				D6818	8-719-082-03	DIODE MM3Z15VT1	
				D6819	8-719-082-03	DIODE MM3Z15VT1	
				D6820	8-719-081-97	DIODE MMDL914T1	
				D6821	8-719-083-66	DIODE UDZSTE-1718B	
				D6822	8-719-081-97	DIODE MMDL914T1	
				D6823	1-535-143-71	LEAD, JUMPER (7.5MM)	
				D6824	8-719-081-97	DIODE MMDL914T1	
				D6825	8-719-081-97	DIODE MMDL914T1	
				D6826	8-719-082-00	DIODE MM3Z4V7T1	
				D6827	1-216-864-11	SHORT CHIP 0	
				C6826	1-162-970-11	CERAMIC CHIP 0.01UF	10.0% 25V
				C6827	1-115-340-11	CERAMIC CHIP 0.22UF	10.0% 25V
				C6828	1-164-315-11	CERAMIC CHIP 470PF	5.0% 50V
				C6829	1-126-947-11	ELECT	47UF 20.0% 35V
				C6831	1-126-966-11	ELECT	33UF 20.0% 50V
				C6832	1-162-966-11	CERAMIC CHIP 0.0022UF	10.0% 50V
				C6833	1-162-970-11	CERAMIC CHIP 0.01UF	10.0% 25V
				C6834	1-126-964-11	ELECT	10UF 20.0% 50V
				C6835	1-165-607-11	FILM	10000PF 3% 800V
				C6836	1-130-495-00	MYLAR	0.1UF 5.0% 50V
				C6837	1-130-471-00	MYLAR	0.001UF 5.0% 50V
				C6838	1-130-495-00	MYLAR	0.1UF 5.0% 50V
				C6839	1-162-970-11	CERAMIC CHIP 0.01UF	10.0% 25V
				C6840	1-165-319-11	CERAMIC CHIP 0.1UF	50V
				C8900	1-162-129-00	CERAMIC	150PF 10.0% 2KV
				C8901	1-162-131-11	CERAMIC	220PF 10.0% 2KV
				C8902	1-129-898-00	FILM	0.0022UF 5.0% 630V
				FB6800	1-410-397-21	FERRITE	1.1UH
				FB8900	1-410-397-21	FERRITE	1.1UH
							< IC >
				IC6800	8-759-586-17	IC TL1431CZ-AP	
				IC6801	8-759-700-07	IC NJM2903M	
				IC6802	8-759-670-30	IC MCZ3001D	
				IC6803	8-759-198-31	IC UPC1093J-1-T	
				IC6804	8-759-701-01	IC NJM2904M	
							< COIL >
				L6800	1-428-950-31	INDUCTOR	125UH
				L6801	1-412-520-11	INDUCTOR	3.9UH

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
L6802	1-412-520-11	INDUCTOR	3.9UH	R6829	1-245-494-21	METAL	2.2M 2% 1/4W
L8900	1-406-674-11	INDUCTOR	3.3MH	R6830	1-249-431-11	CARBON	15K 5% 1/4W
			< PHOTOCOUPLED >	R6832	1-245-494-21	METAL	2.2M 2% 1/4W
				R6833	1-249-377-11	CARBON	0.47 5% 1/4W
				R6834	1-243-979-21	METAL OXIDE	0.1 5% 2W
PH6800	6-600-187-01	PHOTO COUPLER	PC123Y22J00F	R6835	1-216-821-11	METAL CHIP	1K 5% 1/10W
PH6801	6-600-187-01	PHOTO COUPLER	PC123Y22J00F	R6836	1-216-864-11	SHORT CHIP	0
			< TRANSISTOR >	R6837	1-249-419-11	CARBON	1.5K 5% 1/4W
				R6838	1-260-095-11	CARBON	470 5% 1/2W
Q6800	8-729-010-29	TRANSISTOR	MSD601-RST1	R6839	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q6801	8-729-010-29	TRANSISTOR	MSD601-RST1	R6840	1-218-847-11	METAL CHIP	1K 0.5% 1/10W
Q6802	6-550-526-11	TRANSISTOR	2SK2842(LBS2SONY)	R6841	1-218-855-11	METAL CHIP	2.2K 0.5% 1/10W
Q6803	6-550-526-11	TRANSISTOR	2SK2842(LBS2SONY)	R6842	1-218-857-11	METAL CHIP	2.7K 0.5% 1/10W
Q6804	8-729-010-05	TRANSISTOR	MSB709-RT1	R6843	1-216-863-11	METAL CHIP	3.3M 5% 1/10W
Q6806	8-729-421-22	TRANSISTOR	UN2211	R6844	1-218-867-11	METAL CHIP	6.8K 0.5% 1/10W
Q6807	8-729-010-05	TRANSISTOR	MSB709-RT1	R6845	1-218-895-11	METAL CHIP	100K 0.5% 1/10W
Q6808	8-729-421-22	TRANSISTOR	UN2211	R6846	1-216-837-11	METAL CHIP	22K 5% 1/10W
Q6809	8-729-010-05	TRANSISTOR	MSB709-RT1	R6848	1-216-853-11	METAL CHIP	470K 5% 1/10W
Q6810	8-729-010-29	TRANSISTOR	MSD601-RST1	R6849	1-216-834-11	METAL CHIP	12K 5% 1/10W
Q6811	8-729-901-06	TRANSISTOR	DTA144EK	R6852	1-216-809-11	METAL CHIP	100 5% 1/10W
Q6812	8-729-010-05	TRANSISTOR	MSB709-RT1	R6853	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q6813	8-729-010-29	TRANSISTOR	MSD601-RST1	R6854	1-216-849-11	METAL CHIP	220K 5% 1/10W
Q8900	8-729-010-29	TRANSISTOR	MSD601-RST1	R6855	1-216-797-11	METAL CHIP	10 5% 1/10W
Q8901	6-550-700-01	TRANSISTOR	STP5NK40Z(033Y)	R6857	1-216-841-11	METAL CHIP	47K 5% 1/10W
			< RESISTOR >	R6858	1-216-837-11	METAL CHIP	22K 5% 1/10W
R6800	1-216-837-11	METAL CHIP	22K 5% 1/10W	R6859	1-216-841-11	METAL CHIP	47K 5% 1/10W
R6801	1-216-849-11	METAL CHIP	220K 5% 1/10W	R6860	1-216-821-11	METAL CHIP	1K 5% 1/10W
R6802	1-216-841-11	METAL CHIP	47K 5% 1/10W	R6861	1-215-485-00	METAL	470K 1% 1/4W
R6803	1-216-837-11	METAL CHIP	22K 5% 1/10W	R6862	1-216-841-11	METAL CHIP	47K 5% 1/10W
R6804	1-247-843-11	CARBON	3.3K 5% 1/4W	R6863	1-218-853-11	METAL CHIP	1.8K 0.5% 1/10W
R6805	1-218-875-11	METAL CHIP	15K 0.5% 1/10W	R6865	1-249-411-11	CARBON	330 5% 1/4W
R6807	1-218-845-11	METAL CHIP	820 0.5% 1/10W	R6866	1-219-749-51	METAL	10K 5% 1/2W
R6808	1-202-933-61	FUSIBLE	0.1 10% 1/2W	R6867	1-215-485-00	METAL	470K 1% 1/4W
R6809	1-218-874-11	METAL CHIP	13K 0.5% 1/10W	R6869	1-218-865-11	METAL CHIP	5.6K 0.5% 1/10W
R6810	1-218-869-11	METAL CHIP	8.2K 0.5% 1/10W	R6870	1-219-750-91	METAL	22K 5% 1/2W
R6811	1-535-303-00	LEAD, JUMPER	(5.0MM)	R6871	1-216-845-11	METAL CHIP	100K 5% 1/10W
R6812	1-245-478-21	METAL	470K 1% 1/4W	R6873	1-218-887-11	METAL CHIP	47K 0.5% 1/10W
R6813	1-245-478-21	METAL	470K 1% 1/4W	R6874	1-218-895-11	METAL CHIP	100K 0.5% 1/10W
R6814	1-218-912-11	METAL CHIP	510K 0.5% 1/10W	R6875	1-216-821-11	METAL CHIP	1K 5% 1/10W
R6815	1-216-864-11	SHORT CHIP	0	R6877	1-215-433-00	METAL	3.3K 1% 1/4W
R6816	1-218-839-11	METAL CHIP	470 0.5% 1/10W	R6878	1-215-447-00	METAL	12K 1% 1/4W
R6817	1-249-393-11	CARBON	10 5% 1/4W	R6879	1-215-447-00	METAL	12K 1% 1/4W
R6818	1-216-803-11	METAL CHIP	33 5% 1/10W	R6880	1-215-447-00	METAL	12K 1% 1/4W
R6819	1-218-823-11	METAL CHIP	100 0.5% 1/10W	R6881	1-215-447-00	METAL	12K 1% 1/4W
R6820	1-216-833-11	METAL CHIP	10K 5% 1/10W	R6883	1-218-847-11	METAL CHIP	1K 0.5% 1/10W
R6821	1-216-837-11	METAL CHIP	22K 5% 1/10W	R6884	1-216-821-11	METAL CHIP	1K 5% 1/10W
R6823	1-249-393-11	CARBON	10 5% 1/4W	R8901	1-260-123-11	CARBON	100K 5% 1/2W
R6824	1-218-897-11	METAL CHIP	120K 0.5% 1/10W	R8904	1-249-429-11	CARBON	10K 5% 1/4W
R6825	1-216-833-11	METAL CHIP	10K 5% 1/10W	R8907	1-260-123-11	CARBON	100K 5% 1/2W
R6826	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R8908	1-260-123-11	CARBON	100K 5% 1/2W

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R8909	1-260-123-11	CARBON	100K 5% 1/2W	C1107	1-126-933-11	ELECT	100UF 20.00% 16V
R8910	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	C1108	1-162-921-11	CERAMIC CHIP	33PF 5.00% 50V
R8911	1-216-821-11	METAL CHIP	1K 5% 1/10W	C1109	1-162-921-11	CERAMIC CHIP	33PF 5.00% 50V
R8912	1-216-833-11	METAL CHIP	10K 5% 1/10W	C1300	1-162-968-11	CERAMIC CHIP	0.0047UF 10.00% 50V
R8913	1-216-809-11	METAL CHIP	100K 5% 1/10W	C1302	1-216-864-11	SHORT CHIP	0
			< RESISTOR VARIABLE >	RV6801	1-225-627-91	RES, VAR, ADJ, CERMET 2K	
			< SPARK GAP >	SG6800	1-517-499-21	GAP, SPARK	
			< TRANSFORMER >	T8900	1-437-690-11	TRANSFORMER, FERRITE (DFT)	
			Variant Parts KV-28FQ86				
			< RESISTOR >	R8900	1-216-486-21	METAL OXIDE	8.2K 5% 3W
				R8902	1-216-486-21	METAL OXIDE	8.2K 5% 3W
				R8903	1-243-616-21	METAL OXIDE	6.8K 5% 3W
				R8905	1-216-486-21	METAL OXIDE	8.2K 5% 3W
				R8906	1-216-486-21	METAL OXIDE	8.2K 5% 3W
			< TRANSFORMER >	T6800	Δ 1-453-378-21	TRANSFORMER ASSY FLYBACK NK-6020//Z214	
			Variant Parts KV-32FQ86				
			< RESISTOR >	R8900	1-243-618-21	METAL OXIDE	10K 5% 3W
				R8902	1-243-619-21	METAL OXIDE	12K 5% 3W
				R8903	1-243-619-21	METAL OXIDE	12K 5% 3W
				R8905	1-243-619-21	METAL OXIDE	12K 5% 3W
				R8906	1-243-618-21	METAL OXIDE	10K 5% 3W
			< TRANSFORMER >	T6800	Δ 1-453-444-21	TRANSFORMER ASSY FLYBACK NK-6020//Z2B4	
			* A-1302-961-A A Board Complete KV-28FQ86B & KV-32FQ86B	C2026	1-164-156-11	CERAMIC CHIP	0.1UF 25V
			* A-1302-962-A A Board Complete KV-28FQ86E, KV32FQ86E & KV32FQ86K	C2027	1-164-156-11	CERAMIC CHIP	0.1UF

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK			
C2304	1-126-947-11	ELECT	47UF	20.00% 35V	C5202	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C6251	1-104-665-11	ELECT	100UF	20.00% 25V	D5404	8-719-110-41	DIODE RD15ESB2		
C2305	1-107-826-11	CERAMIC CHIP 0.1UF	10.00%	16V	C5203	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C6252	1-126-963-11	ELECT	4.7UF	20.00% 50V	D5405	8-719-908-03	DIODE GP08D		
C2306	1-107-826-11	CERAMIC CHIP 0.1UF	10.00%	16V	C5204	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C6253	1-164-156-11	CERAMIC CHIP 0.1UF	25V	D6201	8-719-022-97	DIODE D2S4MF			
C2400	1-136-175-00	FILM	0.68UF	5.00% 50V	C5205	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	C6254	1-137-374-11	MYLAR	0.047UF	5.00% 50V	D6203	8-719-063-70	DIODE D1NL20U		
C2401	1-165-128-11	CERAMIC CHIP 0.22UF	16V		C5206	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	C6255	1-126-935-11	ELECT	470UF	20.00% 16V	D6204	8-719-063-70	DIODE D1NL20U		
C2402	1-163-135-00	CERAMIC CHIP 560PF	5.00%	50V	C5207	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V	C6256	1-126-947-11	ELECT	47UF	20.00% 35V	D6205	8-719-050-38	DIODE M1MA152WK-T1		
C2403	1-115-339-11	CERAMIC CHIP 0.1UF	10.00%	50V	C5208	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V						D6206	8-719-081-97	DIODE MMDL914T1		
C2404	1-162-966-11	CERAMIC CHIP 0.0022UF	10.00%	50V	C5209	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V						D6207	8-719-081-97	DIODE MMDL914T1		
C2405	1-162-927-11	CERAMIC CHIP 100PF	5.00%	50V	C5210	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V						D6208	8-719-081-97	DIODE MMDL914T1		
C2406	1-163-021-91	CERAMIC CHIP 0.01UF	10.00%	50V	C5214	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V						D6209	8-719-081-97	DIODE MMDL914T1		
C2407	1-164-505-11	CERAMIC CHIP 2.2UF		16V	C5215	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V						D6210	8-719-110-41	DIODE RD15ESB2		
C2408	1-126-963-11	ELECT	4.7UF	20.00% 50V	C5217	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V						D6211	8-719-080-59	DIODE EK19-V0		
C2409	1-115-339-11	CERAMIC CHIP 0.1UF	10.00%	50V	C5218	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V						D6213	8-719-022-97	DIODE D2S4MF		
C2410	1-164-156-11	CERAMIC CHIP 0.1UF		25V	C5219	1-126-964-11	ELECT	10UF	20.00% 50V						D6214	8-719-056-84	DIODE UDZ-TE-17-7.5B	
C2411	1-164-156-11	CERAMIC CHIP 0.1UF		25V	C5403	1-126-941-11	ELECT	470UF	20.00% 25V									
C2412	1-126-943-11	ELECT	2200UF	20.00% 25V	C5404	1-102-228-00	CERAMIC	470PF	10.00% 500V	CN3001	1-691-773-11	PLUG (MICRO CONNECTOR)	11P					
C2413	1-126-943-11	ELECT	2200UF	20.00% 25V	C5405	1-164-156-11	CERAMIC CHIP 0.1UF		25V	CN3002	* 1-817-115-11	CONNECTOR, BOARD TO BOARD	35P	FB2400	1-535-303-00	LEAD, JUMPER (5.0MM)		
C2414	1-164-156-11	CERAMIC CHIP 0.1UF		25V	C5406	1-115-416-11	CERAMIC CHIP 0.001UF	5.00%	25V	CN3004	* 1-816-974-51	PLUG, CONNECTOR 3P		FB2401	1-535-303-00	LEAD, JUMPER (5.0MM)		
C2500	1-107-914-11	ELECT	1000UF	20.00% 50V	C5407	1-126-941-11	ELECT	470UF	20.00% 25V	CN3008	1-691-775-11	PLUG (MICRO CONNECTOR)	13P	FB2601	1-535-303-00	LEAD, JUMPER (5.0MM)		
C2501	1-107-914-11	ELECT	1000UF	20.00% 50V	C5409	1-126-968-11	ELECT	100UF	20.00% 50V	CN5207	* 1-818-034-11	DIN CONNECTOR PLUG 96P		FB2604	1-535-303-00	LEAD, JUMPER (5.0MM)		
C2502	1-164-156-11	CERAMIC CHIP 0.1UF		25V	C5410	1-164-156-11	CERAMIC CHIP 0.1UF		25V	CN5209	* 1-564-520-11	PLUG, CONNECTOR 5P						
C2503	1-164-156-11	CERAMIC CHIP 0.1UF		25V	C5411	1-137-401-11	MYLAR	0.22UF	5.00% 100V	CN6200	* 1-816-977-51	PLUG, CONNECTOR 6P						
C2504	1-126-959-11	ELECT	0.47UF	20.00% 50V	C5412	1-106-220-00	MYLAR	0.1UF	10.00% 100V	CN6201	* 1-564-510-11	PLUG, CONNECTOR 7P		IC2000	6-701-031-11	IC MSP3411G-QA-B11		
C2505	1-107-888-11	ELECT	47UF	20.00% 25V	C5413	1-130-785-11	MYLAR	0.47UF	5.00% 100V	CN6202	* 1-564-510-11	PLUG, CONNECTOR 7P		IC2200	8-759-100-96	IC UPC4558G2		
C2506	1-107-888-11	ELECT	47UF	20.00% 25V	C6200	1-164-156-11	CERAMIC CHIP 0.1UF		25V	CN6203	1-695-915-11	TAB (CONTACT)		IC2300	8-759-576-76	IC TDA2822D013TR		
C2507	1-126-959-11	ELECT	0.47UF	20.00% 50V	C6203	1-164-156-11	CERAMIC CHIP 0.1UF		25V	CN6900	* 1-564-510-11	PLUG, CONNECTOR 7P		IC2400	8-759-544-25	IC TDA7482		
C2508	1-115-339-11	CERAMIC CHIP 0.1UF	10.00%	50V	C6206	1-104-665-11	ELECT	100UF	20.00% 25V					IC2500	6-704-807-01	IC TDA7269		
C2512	1-164-004-11	CERAMIC CHIP 0.1UF	10.00%	25V	C6208	1-126-767-11	ELECT	1000UF	20.00% 16V					IC5102	8-759-325-48	IC CA0005AD		
C2513	1-164-004-11	CERAMIC CHIP 0.1UF	10.00%	25V	C6209	1-104-665-11	ELECT	100UF	20.00% 25V					IC5104	8-759-803-42	IC IA6500-FA		
C2514	1-107-907-11	ELECT	22UF	20.00% 50V	C6217	1-126-767-11	ELECT	1000UF	20.00% 16V	D2002	8-719-081-97	DIODE MMDL914T1		IC5400	8-759-696-71	IC STV9379A		
C2603	1-107-826-11	CERAMIC CHIP 0.1UF	10.00%	16V	C6223	1-136-497-81	FILM	0.1UF	5.00% 50V	D2200	8-719-929-15	DIODE HZS9.1NB2		IC6200	8-759-648-20	IC L7805CV/LSY		
C2619	1-107-826-11	CERAMIC CHIP 0.1UF	10.00%	16V	C6226	1-128-942-31	ELECT	1000UF	20% 6.3V	D2201	8-719-929-15	DIODE HZS9.1NB2		IC6202	8-759-640-19	IC PQ1CG2032FZ		
C5103	1-126-960-11	ELECT	1UF	20.00% 50V	C6229	1-126-935-11	ELECT	470UF	20.00% 16V	D2500	8-719-050-38	DIODE M1MA152WK-T1		IC6204	8-759-648-19	IC L7809CV/LSY		
C5106	1-126-933-11	ELECT	100UF	20.00% 16V	C6234	1-136-497-81	FILM	0.1UF	5.00% 50V	D5100	8-719-081-97	DIODE MMDL914T1		IC6207	8-759-640-19	IC PQ1CG2032FZ		
C5109	1-126-964-11	ELECT	10UF	20.00% 50V	C6235	1-128-550-11	ELECT	2200UF	20.00% 50V	D5103	8-719-110-86	DIODE RD39ESB		IC6210	8-759-445-59	IC BA033T		
C5110	1-126-947-11	ELECT	47UF	20.00% 35V	C6236	1-128-942-31	ELECT	1000UF	20% 6.3V	D5104	8-719-976-99	DIODE DTZ5.1B		IC6211	6-701-848-01	IC KF25BDT		
C5111	1-126-964-11	ELECT	10UF	20.00% 50V	C6237	1-126-767-11	ELECT	1000UF	20.00% 16V	D5200	8-719-081-97	DIODE MMDL914T1		IC6212	8-759-474-09	IC SI-8050S-LF1101		
C5112	1-126-964-11	ELECT	10UF	20.00% 50V	C6238	1-136-497-81	FILM	0.1UF	5.00% 50V	D5201	8-719-081-98	DIODE MM3Z6V8T1						
C5116	1-126																	

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
L2001	1-414-928-21	INDUCTOR	1UH	Q5204	8-729-010-05	TRANSISTOR MSB709-RST1		R1100	1-216-864-11	SHORT CHIP	0	R2307	1-216-837-11	METAL CHIP	22K 5% 1/10W
L2011	1-414-928-21	INDUCTOR	1UH	Q5205	8-729-010-29	TRANSISTOR MSD601-RST1		R1102	1-216-864-11	SHORT CHIP	0	R2308	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
L2400	1-406-977-21	INDUCTOR	100UH	Q5206	8-729-010-05	TRANSISTOR MSB709-RST1		R1103	1-216-864-11	SHORT CHIP	0	R2309	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
L2401	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q5207	8-729-010-29	TRANSISTOR MSD601-RST1		R1105	1-216-864-11	SHORT CHIP	0	R2310	1-249-389-11	CARBON	4.7 5% 1/4W
L2402	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q5208	8-729-010-29	TRANSISTOR MSD601-RST1		R1106	1-216-864-11	SHORT CHIP	0	R2311	1-216-809-11	METAL CHIP	100 5% 1/10W
L2500	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q5209	8-729-010-29	TRANSISTOR MSD601-RST1		R1108	1-216-864-11	SHORT CHIP	0	R2312	1-249-389-11	CARBON	4.7 5% 1/4W
L2501	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q5210	8-729-010-29	TRANSISTOR MSD601-RST1		R1110	1-216-836-11	METAL CHIP	18K 5% 1/10W	R2313	1-216-813-11	METAL CHIP	220 5% 1/10W
L5400	1-412-525-31	INDUCTOR	10UH	Q5211	8-729-010-29	TRANSISTOR MSD601-RST1		R1111	1-216-821-11	METAL CHIP	1K 5% 1/10W	R2314	1-216-809-11	METAL CHIP	100 5% 1/10W
L5401	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q5404	8-729-926-76	TRANSISTOR IRF620		R1300	1-216-821-11	METAL CHIP	1K 5% 1/10W	R2315	1-216-813-11	METAL CHIP	220 5% 1/10W
L5402	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q6201	8-729-010-29	TRANSISTOR MSD601-RST1		R1303	1-216-805-11	METAL CHIP	47 5% 1/10W	R2316	1-216-809-11	METAL CHIP	100 5% 1/10W
L6203	1-419-743-12	INDUCTOR	100UH	Q6202	8-729-010-05	TRANSISTOR MSB709-RST1		R1304	1-216-821-11	METAL CHIP	1K 5% 1/10W	R2317	1-216-809-11	METAL CHIP	100 5% 1/10W
L6207	1-412-525-31	INDUCTOR	10UH	Q6203	8-729-010-29	TRANSISTOR MSD601-RST1		R2000	1-414-760-21	FERRITE	0UH	R2400	1-249-422-11	CARBON	2.7K 5% 1/4W
L6210	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q6204	8-729-010-05	TRANSISTOR MSB709-RST1		R2001	1-414-760-21	FERRITE	0UH	R2401	1-216-817-11	METAL CHIP	470 5% 1/10W
L6211	1-535-303-00	LEAD, JUMPER	(5.0MM)	Q6205	8-729-010-05	TRANSISTOR MSB709-RST1		R2002	1-216-845-11	METAL CHIP	100K 5% 1/10W	R2402	1-218-827-11	METAL CHIP	150 0.5% 1/10W
L6213	1-412-539-11	INDUCTOR	150UH	Q6206	8-729-010-29	TRANSISTOR MSD601-RST1		R2003	1-216-864-11	SHORT CHIP	0	R2403	1-216-833-11	METAL CHIP	10K 5% 1/10W
L6218	1-419-743-12	INDUCTOR	100UH	Q6207	8-729-010-29	TRANSISTOR MSD601-RST1		R2004	1-216-864-11	SHORT CHIP	0	R2404	1-216-821-11	METAL CHIP	1K 5% 1/10W
L6219	1-406-971-11	INDUCTOR	10UH	Q6208	8-729-010-29	TRANSISTOR MSD601-RST1		R2005	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R2405	1-216-838-11	METAL CHIP	27K 5% 1/10W
< PROTECTOR MODULE >				< RESISTOR >				< RESISTOR >				< RESISTOR >			
PS2000	△ 1-801-549-21	IC LINK	4A 0V	JR3001	1-216-864-11	SHORT CHIP	0	R2022	1-216-845-11	METAL CHIP	100K 5% 1/10W	R2410	1-216-864-11	SHORT CHIP	0
PS2001	△ 1-801-549-21	IC LINK	4A 0V	JR3003	1-216-864-11	SHORT CHIP	0	R2025	1-216-864-11	SHORT CHIP	0	R2500	1-216-089-91	RES-CHIP	47K 5% 1/10W
< TRANSISTOR >				JR3004	1-216-864-11	SHORT CHIP	0	R2026	1-216-809-11	METAL CHIP	100 5% 1/10W	R2501	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q0100	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		JR3006	1-216-864-11	SHORT CHIP	0	R2029	1-216-864-11	SHORT CHIP	0	R2502	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q0200	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		JR3010	1-216-864-11	SHORT CHIP	0	R2030	1-216-864-11	SHORT CHIP	0	R2503	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q0201	8-729-028-28	TRANSISTOR 2SK2036(TE85L)		JR6001	1-216-864-11	SHORT CHIP	0	R2200	1-216-837-11	METAL CHIP	22K 5% 1/10W	R2504	1-216-089-91	RES-CHIP	47K 5% 1/10W
Q1100	8-729-010-29	TRANSISTOR MSD601-RST1		JR6002	1-216-864-11	SHORT CHIP	0	R2201	1-216-833-11	METAL CHIP	10K 5% 1/10W	R2505	1-216-049-11	RES-CHIP	1K 5% 1/10W
Q1300	8-729-010-29	TRANSISTOR MSD601-RST1		JR6003	1-216-864-11	SHORT CHIP	0	R2202	1-216-837-11	METAL CHIP	22K 5% 1/10W	R2506	1-216-079-00	RES-CHIP	18K 5% 1/10W
Q1301	8-729-010-05	TRANSISTOR MSB709-RT1		JR6004	1-216-864-11	SHORT CHIP	0	R2203	1-216-839-11	METAL CHIP	33K 5% 1/10W	R2507	1-216-079-00	RES-CHIP	18K 5% 1/10W
Q2000	8-729-010-29	TRANSISTOR MSD601-RST1		JR6005	1-216-864-11	SHORT CHIP	0	R2204	1-216-839-11	METAL CHIP	33K 5% 1/10W	R2508	1-216-809-11	METAL CHIP	100 5% 1/10W
Q2200	8-729-010-05	TRANSISTOR MSB709-RT1		JR6006	1-216-864-11	SHORT CHIP	0	R2205	1-216-833-11	METAL CHIP	10K 5% 1/10W	R2509	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q2201	8-729-010-29	TRANSISTOR MSD601-RST1		JR6007	1-216-864-11	SHORT CHIP	0	R2206	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R2511	1-216-837-11	METAL CHIP	22K 5% 1/10W
Q2202	8-729-010-29	TRANSISTOR MSD601-RST1		JR6008	1-216-864-11	SHORT CHIP	0	R2207	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R2512	1-216-835-11	METAL CHIP	15K 5% 1/10W
Q2300	8-729-010-05	TRANSISTOR MSB709-RT1		JR6009	1-216-864-11	SHORT CHIP	0	R2208	1-216-821-11	METAL CHIP	1K 5% 1/10W	R2514	1-216-826-11	METAL CHIP	2.7K 5% 1/10W
Q2301	8-729-010-29	TRANSISTOR MSD601-RST1		JR6013	1-216-864-11	SHORT CHIP	0	R2209	1-216-821-11	METAL CHIP	1K 5% 1/10W	R2515	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q2302	8-729-010-29	TRANSISTOR MSD601-RST1		JR6023	1-216-864-11	SHORT CHIP	0	R2211	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R2516	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q2400	8-729-010-05	TRANSISTOR MSB709-RT1		JR6025	1-216-864-11	SHORT CHIP	0	R2213	1-216-821-11	METAL CHIP	1K 5% 1/10W	R2517	1-216-864-11	SHORT CHIP	0
Q2401	8-729-010-29	TRANSISTOR MSD601-RST1		JR6027	1-216-864-11	SHORT CHIP	0	R2214	1-216-817-11	METAL CHIP	470 5% 1/10W	R2518	1-216-081-00	RES-CHIP	22K 5% 1/10W
Q2500	8-729-010-29	TRANSISTOR MSD601-RST1		JR8002	1-216-864-11	SHORT CHIP	0	R2216	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R2519	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q2501	8-729-010-29	TRANSISTOR MSD601-RST1		JR8003	1-216-864-11	SHORT CHIP	0	R2217	1-216-817-11	METAL CHIP	470 5% 1/10W	R2520	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q2502	8-729-010-														

A

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

A G

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R5112	1-216-835-11	METAL CHIP	15K 5% 1/10W	R5231	1-216-823-11	METAL CHIP	1.5K 5% 1/10W
R5118	1-249-411-11	CARBON	330 5% 1/4W	R5232	1-216-833-11	METAL CHIP	10K 5% 1/10W
R5119	1-216-844-11	METAL CHIP	82K 5% 1/10W	R5233	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5122	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5234	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5125	1-216-836-11	METAL CHIP	18K 5% 1/10W	R5235	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5126	1-249-406-11	CARBON	120 5% 1/4W	R5236	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5127	1-216-841-11	METAL CHIP	47K 5% 1/10W	R5237	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5141	1-216-833-11	METAL CHIP	10K 5% 1/10W	R5239	1-216-833-11	METAL CHIP	10K 5% 1/10W
R5143	1-216-833-11	METAL CHIP	10K 5% 1/10W	R5240	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5144	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5241	1-216-833-11	METAL CHIP	10K 5% 1/10W
R5145	1-216-809-11	METAL CHIP	100 5% 1/10W	R5242	1-216-826-11	METAL CHIP	2.7K 5% 1/10W
R5146	1-216-809-11	METAL CHIP	100 5% 1/10W	R5243	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5148	1-216-809-11	METAL CHIP	100 5% 1/10W	R5244	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R5149	1-218-833-11	METAL CHIP	270 0.5% 1/10W	R5245	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5150	1-249-414-11	CARBON	560 5% 1/4W	R5246	1-218-867-11	METAL CHIP	6.8K 0.5% 1/10W
R5151	1-249-454-11	CARBON	3.9 5% 1/4W	R5247	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5152	1-249-413-11	CARBON	470 5% 1/4W	R5248	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5153	1-249-393-11	CARBON	10 5% 1/4W	R5249	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R5154	1-216-853-11	METAL CHIP	470K 5% 1/10W	R5250	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5155	1-249-421-11	CARBON	2.2K 5% 1/4W	R5251	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5156	1-216-837-11	METAL CHIP	22K 5% 1/10W	R5252	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R5157	1-218-867-11	METAL CHIP	6.8K 0.5% 1/10W	R5253	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5158	1-216-843-11	METAL CHIP	68K 5% 1/10W	R5254	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R5201	1-216-809-11	METAL CHIP	100 5% 1/10W	R5255	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
R5203	1-216-864-11	SHORT CHIP	0	R5256	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
R5204	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5408	1-216-845-11	METAL CHIP	100K 5% 1/10W
R5205	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5409	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W
R5206	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5410	1-218-859-11	METAL CHIP	3.3K 0.5% 1/10W
R5207	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5411	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
R5209	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5413	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W
R5210	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5414	1-249-383-11	CARBON	1.5 5% 1/4W
R5212	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5415	1-249-389-11	CARBON	4.7 5% 1/4W
R5213	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5416	1-243-568-21	METAL OXIDE	220 5% 2W
R5214	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5417	1-218-859-11	METAL CHIP	3.3K 0.5% 1/10W
R5215	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5420	1-214-798-21	METAL	1.8 1% 1/2W
R5216	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R5421	1-214-798-21	METAL	1.8 1% 1/2W
R5217	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	R6203	1-218-859-11	METAL CHIP	3.3K 0.5% 1/10W
R5218	1-216-833-11	METAL CHIP	10K 5% 1/10W	R6206	1-218-847-11	METAL CHIP	1K 0.5% 1/10W
R5219	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6209	1-216-864-11	SHORT CHIP	0
R5220	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6211	1-218-860-11	METAL CHIP	3.6K 0.5% 1/10W
R5221	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	R6213	1-535-303-00	LEAD, JUMPER (5.0MM)	
R5222	1-216-833-11	METAL CHIP	10K 5% 1/10W	R6214	1-216-864-11	SHORT CHIP	0
R5223	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6215	1-216-833-11	METAL CHIP	10K 5% 1/10W
R5224	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6216	1-216-821-11	METAL CHIP	1K 5% 1/10W
R5225	1-216-823-11	METAL CHIP	1.5K 5% 1/10W	R6217	1-216-821-11	METAL CHIP	1K 5% 1/10W
R5226	1-216-833-11	METAL CHIP	10K 5% 1/10W	R6218	1-216-821-11	METAL CHIP	1K 5% 1/10W
R5227	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6219	1-216-841-11	METAL CHIP	47K 5% 1/10W
R5228	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6220	1-216-833-11	METAL CHIP	10K 5% 1/10W
R5229	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6221	1-216-833-11	METAL CHIP	10K 5% 1/10W
R5230	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R6222	1-216-864-11	SHORT CHIP	0

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK				
* A-1302-963-A G Board Complete											
R6223	1-216-846-11	METAL CHIP	120K 5% 1/10W	4-382-854-01 SCREW (M3X8), P, SW (+)							
< CAPACITOR >											
C6001	Δ 1-165-528-11	MYLAR	0.1UF	10	275V						
C6002	Δ 1-165-528-11	MYLAR	0.1UF	10	275V						
C6003	Δ 1-119-900-51	CERAMIC	2200PF	20.00	250V						
C6004	Δ 1-119-900-51	CERAMIC	2200PF	20.00	250V						
C6005	1-126-965-91	ELECT	22UF	20.00	50V						
C6006	1-117-753-11	ELECT(BLOCK)	470UF	20.00	450V						
C6007	1-126-964-11	ELECT	10UF	20.00	50V						
C6008	1-126-963-11	ELECT	4.7UF	20.00	50V						
C6010	1-136-497-81	FILM	0.1UF	5.00	50V						
C6011	1-162-964-11	CERAMIC CHIP	0.001UF	10.00	50V						
C6012	Δ 1-104-571-91	CERAMIC	0.0015UF	10.00	2KV						
C6013	Δ 1-104-571-91	CERAMIC	0.0015UF	10.00	2KV						
C6015	1-115-339-11	CERAMIC CHIP	0.1UF	10.00	50V						
C6016	Δ 1-104-571-91	CERAMIC	0.0015UF	10.00	2KV						
C6017	Δ 1-104-571-91	CERAMIC	0.0015UF	10.00	2KV						
C6018	1-126-949-11	ELECT	220UF	20.00	35V						
C6019	1-162-968-11	CERAMIC CHIP	0.0047UF	10.00	50V						
C6020	1-100-311-11	FILM	22000PF	3%							

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

G

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

G B

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
CN6006	* 1-564-510-11	PLUG, CONNECTOR 7P				< TRANSISTOR >	
CN6007	1-817-917-11	PIN, CONNECTOR 3P		Q6003	8-729-010-29	TRANSISTOR MSD601-RST1	
CN6008	* 1-816-977-51	PLUG, CONNECTOR 6P		Q6005	8-729-901-06	TRANSISTOR DTA144EK	
CN6012	* 1-564-510-11	PLUG, CONNECTOR 7P		Q6006	6-550-698-01	TRANSISTOR SPA08N50C3-E8152	
	< DIODE >			Q6007	6-550-698-01	TRANSISTOR SPA08N50C3-E8152	
D6001	6-500-067-01	DIODE GSIB460L/45		Q6010	8-729-010-29	TRANSISTOR MSD601-RST1	
D6002	8-719-982-26	DIODE MTZJ-33B		Q6102	8-729-010-29	TRANSISTOR MSD601-RST1	
D6004	8-719-083-94	DIODE EUF4005				< RESISTOR >	
D6006	8-719-081-97	DIODE MMDL914T1		JR6007	1-216-864-11	SHORT CHIP 0	
D6007	8-719-081-97	DIODE MMDL914T1		R6003	Δ 1-202-933-61	FUSIBLE 0.1 10% 1/2W	
D6008	6-500-175-01	DIODE 1E3-TB		R6004	Δ 1-205-998-11	CEMENTED 1 5% 10W	
D6009	8-719-110-41	DIODE RD15ESB2		R6005	Δ 1-205-998-11	CEMENTED 1 5% 10W	
D6012	8-719-052-90	DIODE D1NL40-TA2		R6007	1-243-979-21	METAL OXIDE 0.1 5% 2W	
D6013	6-500-175-01	DIODE 1E3-TB		R6008	1-243-979-21	METAL OXIDE 0.1 5% 2W	
D6016	8-719-060-88	DIODE D4SBS6		R6009	1-218-875-11	METAL CHIP 15K 0.5% 1/10W	
D6017	8-719-052-90	DIODE D1NL40-TA2		R6010	1-245-478-21	METAL 470K 1% 1/4W	
D6031	8-719-080-59	DIODE EK19-V0		R6011	1-245-494-21	METAL 2.2M 2% 1/4W	
D6032	8-719-080-59	DIODE EK19-V0		R6012	1-245-494-21	METAL 2.2M 2% 1/4W	
D6033	8-719-312-92	DIODE RK14V1		R6013	Δ 1-218-265-11	METAL 8.2M 5% 1W	
D6034	8-719-312-92	DIODE RK14V1		R6014	1-243-624-21	METAL OXIDE 33K 5% 3W	
D6036	8-719-080-59	DIODE EK19-V0		R6015	1-211-992-11	METAL CHIP 91 0.5% 1/10W	
D6102	8-719-511-40	DIODE S1VB40		R6016	1-216-821-11	METAL CHIP 1K 5% 1/10W	
D6104	8-719-081-97	DIODE MMDL914T1		R6017	1-216-833-11	METAL CHIP 10K 5% 1/10W	
D6105	8-719-081-97	DIODE MMDL914T1		R6018	1-260-131-11	CARBON 470K 5% 1/2W	
	< FERRITE BEAD >			R6019	1-260-129-11	CARBON 330K 5% 1/2W	
FB6002	1-410-397-21	FERRITE 1.1UH		R6020	1-216-820-11	METAL CHIP 820 5% 1/10W	
FB6003	1-410-397-21	FERRITE 1.1UH		R6021	1-243-946-21	METAL OXIDE 0.27 5% 2W	
	< IC >			R6022	1-216-833-11	METAL CHIP 10K 5% 1/10W	
IC6001	8-759-670-30	IC MCZ3001D		R6024	1-211-981-11	METAL CHIP 33 0.5% 1/10W	
IC6003	8-749-016-19	IC SE135N-LF4		R6029	1-216-833-11	METAL CHIP 10K 5% 1/10W	
	< COIL >			R6030	1-216-817-11	METAL CHIP 470 5% 1/10W	
L6001	1-406-663-21	INDUCTOR 47UH		R6032	1-249-417-11	CARBON 1K 5% 1/4W	
L6002	1-412-521-31	INDUCTOR 4.7UH		R6033	1-245-478-21	METAL 470K 1% 1/4W	
L6003	1-412-521-31	INDUCTOR 4.7UH		R6035	1-260-083-11	CARBON 47 5% 1/2W	
L6004	1-535-303-00	LEAD, JUMPER (5.0MM)		R6036	1-216-817-11	METAL CHIP 470 5% 1/10W	
L6005	1-535-303-00	LEAD, JUMPER (5.0MM)		R6037	1-249-405-11	CARBON 100 5% 1/4W	
L6006	1-406-659-11	INDUCTOR 10UH		R6038	1-218-895-11	METAL CHIP 100K 0.5% 1/10W	
L6007	1-412-525-31	INDUCTOR 10UH		R6039	1-218-895-11	METAL CHIP 100K 0.5% 1/10W	
L6008	1-412-533-21	INDUCTOR 47UH		R6040	1-218-879-11	METAL CHIP 22K 0.5% 1/10W	
L6009	1-414-181-11	INDUCTOR 4.7UH		R6045	1-216-815-11	METAL CHIP 330 5% 1/10W	
L6014	1-414-189-31	INDUCTOR 100UH		R6047	1-218-885-11	METAL CHIP 39K 0.5% 1/10W	
	< PHOTOCOUPLED >			R6049	1-218-869-11	METAL CHIP 8.2K 0.5% 1/10W	
R6054	1-211-981-11	METAL CHIP 33 0.5% 1/10W		R6050	1-218-823-11	METAL CHIP 100 0.5% 1/10W	
PH6001	Δ 6-600-187-01	PHOTO COUPLER PC123Y22J00F		R6054	1-211-981-11	METAL CHIP 33 0.5% 1/10W	

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R6105	1-216-821-11	METAL CHIP 1K 5% 1/10W		C0054	1-126-947-11	ELECT 47UF	20.00% 35V
R6106	1-216-829-11	METAL CHIP 4.7K 5% 1/10W		C0055	1-126-947-11	ELECT 47UF	20.00% 35V
	< RELAY >			C0056	1-164-156-11	CERAMIC CHIP 0.1UF	25V
RY6001	Δ 1-755-388-11	RELAY (AC POWER)		C0059	1-164-156-11	CERAMIC CHIP 0.1UF	25V
RY6002	Δ 1-755-388-11	RELAY (AC POWER)		C0060	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V
	< TRANSFORMER >			C0061	1-164-156-11	CERAMIC CHIP 0.1UF	25V
T6001	Δ 1-428-896-11	COIL, LINE FILTER		C0062	1-126-947-11	ELECT 47UF	20.00% 35V
T6002	Δ 1-443-059-11	TRANSFORMER, CONVERTER (PIT)		C0063	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V
T6003	Δ 1-428-896-11	COIL, LINE FILTER		C0064	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V
T6101	Δ 1-443-114-11	TRANSFORMER, STANDBY		C0065	1-164-156-11	CERAMIC CHIP 0.1UF	25V
	< THERMISTOR >			C0066	1-164-156-11	CERAMIC CHIP 0.1UF	25V
TH6002	Δ 1-804-650-11	THERMISTOR, POSITIVE		C3101	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
	* A-1302-965-A B Board Complete			C3102	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
	4-087-203-01	PLASTIC RIVET		C3103	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
	< CAPACITOR >			C3104	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C0005	1-162-921-11	CERAMIC CHIP 33PF	5.00% 50V	C3107	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C0006	1-162-921-11	CERAMIC CHIP 33PF	5.00% 50V	C3108	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C0007	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V	C3109	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C0008	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3110	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C0009	1-162-923-11	CERAMIC CHIP 47PF	5.00% 50V	C3116	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C0011	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3117	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C0013	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3121	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C0015	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3122	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C0016	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3123	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C0017	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3124	1-164-156-11	CERAMIC CHIP 0.1UF	25V
C0018	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C3127	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V
C0020	1-126-947-11	ELECT 47UF	20.00% 35V	C3129	1-165-176-11	CERAMIC CHIP 0.047UF	10.00

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
C3305	1-164-156-11	CERAMIC CHIP 0.1UF	25V	C5560	1-127-715-91	CERAMIC CHIP 0.22UF	10% 16V
C3306	1-164-156-11	CERAMIC CHIP 0.1UF	25V			< CONNECTOR >	
C3307	1-126-947-11	ELECT 47UF	20.00% 35V				
C3308	1-164-156-11	CERAMIC CHIP 0.1UF	25V	CN3100	1-794-244-11	CONNECTOR, DIN (PLUG) 96P	
C3309	1-164-156-11	CERAMIC CHIP 0.1UF	25V	CN3400	* 1-564-524-11	PLUG, CONNECTOR 9P	
C3310	1-164-156-11	CERAMIC CHIP 0.1UF	25V	CN3402	* 1-564-519-11	PLUG, CONNECTOR 4P	
C3311	1-164-156-11	CERAMIC CHIP 0.1UF	25V			< DIODE >	
C3312	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V				
C3313	1-162-919-11	CERAMIC CHIP 22PF	5.00% 50V				
C3314	1-164-156-11	CERAMIC CHIP 0.1UF	25V	D0069	8-719-083-57	DIODE UDVZSTE-173.6B	
				D0070	8-719-081-97	DIODE MMDL914T1	
C3315	1-164-156-11	CERAMIC CHIP 0.1UF	25V	D0071	8-719-081-97	DIODE MMDL914T1	
C3316	1-164-156-11	CERAMIC CHIP 0.1UF	25V	D5500	8-719-069-55	DIODE UDVZSTE-175.6B	
C3317	1-164-156-11	CERAMIC CHIP 0.1UF	25V	D5501	8-719-083-57	DIODE UDVZSTE-173.6B	
C3318	1-164-156-11	CERAMIC CHIP 0.1UF	25V				
C3319	1-126-947-11	ELECT 47UF	20.00% 35V	D5502	6-500-028-01	DIODE MM3Z9V1ST1	
				D5504	8-719-081-97	DIODE MMDL914T1	
C3320	1-126-947-11	ELECT 47UF	20.00% 35V	D5505	8-719-081-97	DIODE MMDL914T1	
C3321	1-115-758-11	ELECT 470UF	20.00% 16V	D5506	8-719-081-97	DIODE MMDL914T1	
C3324	1-164-156-11	CERAMIC CHIP 0.1UF	25V	D5511	8-719-081-97	DIODE MMDL914T1	
C3402	1-126-947-11	ELECT 47UF	20.00% 35V			< IC >	
C3403	1-164-156-11	CERAMIC CHIP 0.1UF	25V				
C3405	1-164-156-11	CERAMIC CHIP 0.1UF	25V	IC0001	6-704-964-01	IC SDA6001-B12T	
C3406	1-126-947-11	ELECT 47UF	20.00% 35V	IC0002	8-759-682-41	IC M24C32-WMN6T(A)	
C3407	1-164-156-11	CERAMIC CHIP 0.1UF	25V	IC0003	6-704-312-01	IC K4S641632F-UC75T	
C3408	1-126-947-11	ELECT 47UF	20.00% 35V	IC0005	6-804-027-02	IC M27V160-100K1-6Y002	
C3409	1-126-947-11	ELECT 47UF	20.00% 35V	IC0006	6-702-313-01	IC PST600IMT	
C3410	1-164-156-11	CERAMIC CHIP 0.1UF	25V	IC0007	8-759-352-91	IC PST9143NL	
C3411	1-164-156-11	CERAMIC CHIP 0.1UF	25V	IC3100	6-803-528-01	IC VSP9417BC3G	
C3412	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V	IC3300	6-705-124-01	IC FRC9429A-A1	
C3413	1-164-156-11	CERAMIC CHIP 0.1UF	25V	IC3400	6-705-123-01	IC DDP3316C-H5	
C3421	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V			< COIL >	
C3422	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V				
C3425	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V	L0002	1-414-928-21	INDUCTOR	1UH
C3427	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V	L0003	1-414-928-21	INDUCTOR	1UH
C3428	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V	L0004	1-414-928-21	INDUCTOR	1UH
C3431	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V	L0006	1-414-928-21	INDUCTOR	1UH
				L0007	1-414-928-21	INDUCTOR	1UH
C3432	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V				
C3433	1-165-176-11	CERAMIC CHIP 0.047UF	10.00% 16V	L0008	1-414-928-21	INDUCTOR	1UH
C3434	1-164-156-11	CERAMIC CHIP 0.1UF	25V	L3100	1-414-928-21	INDUCTOR	1UH
C3435	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V	L3104	1-414-928-21	INDUCTOR	1UH
C3436	1-126-947-11	ELECT 47UF	20.00% 35V	L3105	1-414-928-21	INDUCTOR	1UH
				L3106	1-414-928-21	INDUCTOR	1UH
C3847	1-164-156-11	CERAMIC CHIP 0.1UF	25V				
C5503	1-162-927-11	CERAMIC CHIP 100PF	5.00% 50V	L3107	1-414-928-21	INDUCTOR	1UH
C5508	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	L3300	1-414-928-21	INDUCTOR	1UH
C5509	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V	L3301	1-414-928-21	INDUCTOR	1UH
C5510	1-115-416-11	CERAMIC CHIP 0.001UF	5.00% 25V	L3302	1-414-928-21	INDUCTOR	1UH
				L3303	1-410-397-21	FERRITE	1.1UH
C5511	1-162-970-11	CERAMIC CHIP 0.01UF	10.00% 25V				
C5516	1-164-156-11	CERAMIC CHIP 0.1UF	25V	L3400	1-414-928-21	INDUCTOR	1UH
C5518	1-164-156-11	CERAMIC CHIP 0.1UF	25V	L3401	1-414-928-21	INDUCTOR	1UH
C5521	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V	L3402	1-414-928-21	INDUCTOR	1UH
C5558	1-126-947-11	ELECT 47UF	20.00% 35V	L3403	1-414-928-21	INDUCTOR	1UH

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
L3404	1-414-928-21	INDUCTOR	1UH	R0009	1-216-817-11	METAL CHIP	470 5% 1/10W
L5549	1-414-928-21	INDUCTOR	1UH	R0011	1-216-864-11	SHORT CHIP	0
< TRANSISTOR >							
Q0001	8-729-010-05	TRANSISTOR MSB709-RT1		R0014	1-216-805-11	METAL CHIP	47 5% 1/10W
Q0002	8-729-010-05	TRANSISTOR MSB709-RT1		R0015	1-216-805-11	METAL CHIP	47 5% 1/10W
Q0003	8-729-010-05	TRANSISTOR MSB709-RT1		R0016	1-216-805-11	METAL CHIP	47 5% 1/10W
Q0005	8-729-010-29	TRANSISTOR MSD601-RST1		R0017	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q0075	8-729-010-29	TRANSISTOR MSD601-RST1		R0018	1-216-864-11	SHORT CHIP	0
Q3400	8-729-010-29	TRANSISTOR MSD601-RST1		R0019	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3401	8-729-010-29	TRANSISTOR MSD601-RST1		R0020	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q3402	8-729-010-29	TRANSISTOR MSD601-RST1		R0021	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3403	8-729-010-29	TRANSISTOR MSD601-RST1		R0022	1-216-864-11	SHORT CHIP	0
Q3404	8-729-010-29	TRANSISTOR MSD601-RST1		R0023	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q3405	8-729-010-29	TRANSISTOR MSD601-RST1		R0025	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3406	8-729-010-05	TRANSISTOR MSB709-RT1		R0026	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3409	8-729-010-29	TRANSISTOR MSD601-RST1		R0027	1-216-809-11	METAL CHIP	100 5% 1/10W
Q3410	8-729-010-29	TRANSISTOR MSD601-RST1		R0028	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q5500	8-729-010-29	TRANSISTOR MSD601-RST1		R0029	1-216-809-11	METAL CHIP	100 5% 1/10W
Q5503	8-729-010-29	TRANSISTOR MSD601-RST1		R0030	1-216-809-11	METAL CHIP	100 5% 1/10W
Q5505	8-729-010-29	TRANSISTOR MSD601-RST1		R0031	1-216-809-11	METAL CHIP	100 5% 1/10W
Q5507	8-729-010-05	TRANSISTOR MSB709-RT1		R0032	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q5509	8-729-010-29	TRANSISTOR MSD601-RST1		R0033	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
Q5519	8-729-010-29	TRANSISTOR MSD601-RST1		R0034	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q5521	8-729-010-05	TRANSISTOR MSB709-RT1		R0035	1-216-809-11	METAL CHIP	100 5% 1/10W
Q5550	8-729-010-29	TRANSISTOR MSD601-RST1		R0036	1-216-809-11	METAL CHIP	100 5% 1/10W
< RESISTOR >							
JR0002	1-216-864-11	SHORT CHIP	0	R0041	1-216-815-11	METAL CHIP	330 5% 1/10W
JR0003	1-216-864-11	SHORT CHIP	0	R0042	1-216-809-11	METAL CHIP	100 5% 1/10W
JR0004	1-216-864-11	SHORT CHIP	0	R0043	1-216-864-11	SHORT CHIP	0
JR0008	1-216-864-11	SHORT CHIP	0	R0044	1-216-809-11	METAL CHIP	100 5% 1/10W
JR0010	1-216-864-11	SHORT CHIP	0	R0045	1-216-809-11	METAL CHIP	100 5% 1/10W
JR0011	1-216-864-11	SHORT CHIP	0	R0046	1-216-833-11	METAL CHIP	10K 5% 1/10W
JR3400	1-216-864-11	SHORT CHIP	0	R0047	1-216-809-11	METAL CHIP	100 5% 1/10W
JR3401	1-216-864-11	SHORT CHIP	0	R0048	1-216-809-11	METAL CHIP	100 5% 1/10W
JR3404	1-216-864-11	SHORT CHIP	0	R0049	1-216-809-11	METAL CHIP	100 5% 1/10W
JR3406	1-216-864-11	SHORT CHIP	0	R0052	1-216-809-11	METAL CHIP	100 5% 1/10W
JR3408	1-216-864-11	SHORT CHIP	0	R0053	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
JR3409	1-216-864-11	SHORT CHIP	0	R0056	1-216-809-11	METAL CHIP	100 5% 1/10W
JR5582	1-216-864-11	SHORT CHIP	0	R0057	1-216-809-11	METAL CHIP	100 5% 1/10W
R0001	1-216-833-11	METAL CHIP	10K 5% 1/10W	R0059	1-216-809-11	METAL CHIP	100 5% 1/10W
R0002	1-216-833-11	METAL CHIP	10K 5% 1/10W	R0060	1-216-809-11	METAL CHIP	100 5% 1/10W
R0003	1-216-833-11	METAL CHIP	10K 5% 1/10W	R0063	1-216-809-11	METAL CHIP	100 5% 1/10W
R0004	1-216-816-11	METAL CHIP	390 5% 1/10W	R0064	1-216-809-11	METAL CHIP	100 5% 1/10W
R0005	1-216-816-11	METAL CHIP	390 5% 1/10W	R0065	1-216-833-11	METAL CHIP	10K 5% 1/10W
R0006	1-216-816-11	METAL CHIP	390 5% 1/10W	R0066	1-216-833-11	METAL CHIP	10K 5% 1/10W
R0007	1-216-817-11	METAL CHIP	470 5% 1/10W	R0067	1-216-833-11	METAL CHIP	10K 5% 1/10W
R0008	1-216-817-11	METAL CHIP	470 5% 1/10W	R0068	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R0069	1-216-833-11	METAL CHIP	10K 5% 1/10W

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REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
R0070	1-216-809-11	METAL CHIP	100 5% 1/10W	R3307	1-216-864-11	SHORT CHIP	0	R5507	1-216-864-11	SHORT CHIP	0	RB0035	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0071	1-216-849-11	METAL CHIP	220K 5% 1/10W	R3308	1-216-864-11	SHORT CHIP	0	R5508	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	RB0036	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0072	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R3311	1-216-864-11	SHORT CHIP	0	R5510	1-216-809-11	METAL CHIP	100 5% 1/10W	RB0037	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0073	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3314	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5511	1-216-809-11	METAL CHIP	100 5% 1/10W	RB0038	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0074	1-216-864-11	SHORT CHIP	0	R3315	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5512	1-216-838-11	METAL CHIP	27K 5% 1/10W	RB0039	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0075	1-216-809-11	METAL CHIP	100 5% 1/10W	R3316	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5513	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W	RB0043	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0076	1-216-864-11	SHORT CHIP	0	R3317	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5516	1-218-831-11	METAL CHIP	220 0.5% 1/10W	RB0044	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0079	1-216-864-11	SHORT CHIP	0	R3318	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5517	1-216-809-11	METAL CHIP	100 5% 1/10W	RB0045	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0080	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R3319	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5518	1-216-809-11	METAL CHIP	100 5% 1/10W	RB0050	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0081	1-216-827-11	METAL CHIP	3.3K 5% 1/10W	R3320	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5521	1-216-821-11	METAL CHIP	1K 5% 1/10W	RB0051	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0082	1-216-809-11	METAL CHIP	100 5% 1/10W	R3321	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5523	1-218-855-11	METAL CHIP	2.2K 0.5% 1/10W	RB0052	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0083	1-216-809-11	METAL CHIP	100 5% 1/10W	R3327	1-216-817-11	METAL CHIP	470 5% 1/10W	R5524	1-216-838-11	METAL CHIP	27K 5% 1/10W	RB0053	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0084	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3400	1-216-864-11	SHORT CHIP	0	R5526	1-216-821-11	METAL CHIP	1K 5% 1/10W	RB0054	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0085	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R3401	1-216-821-11	METAL CHIP	1K 5% 1/10W	R5528	1-216-833-11	METAL CHIP	10K 5% 1/10W	RB0055	1-233-576-11	RES, CHIP NETWORK 100	(3216)
R0086	1-216-809-11	METAL CHIP	100 5% 1/10W	R3403	1-218-843-11	METAL CHIP	680 0.5% 1/10W	R5529	1-216-833-11	METAL CHIP	10K 5% 1/10W	RB3100	1-234-523-21	RES, CHIP NETWORK 0	(3216)
R0087	1-216-809-11	METAL CHIP	100 5% 1/10W	R3405	1-216-797-11	METAL CHIP	10 5% 1/10W	R5532	1-216-821-11	METAL CHIP	1K 5% 1/10W	RB3101	1-234-523-21	RES, CHIP NETWORK 0	(3216)
R0088	1-216-809-11	METAL CHIP	100 5% 1/10W	R3406	1-216-864-11	SHORT CHIP	0	R5539	1-218-879-11	METAL CHIP	22K 0.5% 1/10W				< CRYSTAL >
R0089	1-107-826-11	CERAMIC CHIP	0.1UF 10% 16V	R3408	1-216-797-11	METAL CHIP	10 5% 1/10W	R5540	1-218-881-11	METAL CHIP	27K 0.5% 1/10W	X0001	1-567-162-00	OSCILLATOR, CRYSTAL	
R0092	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R3409	1-216-864-11	SHORT CHIP	0	R5541	1-216-821-11	METAL CHIP	1K 5% 1/10W	X3100	1-781-946-21	VIBRATOR, CRYSTAL	
R0093	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3410	1-216-797-11	METAL CHIP	10 5% 1/10W	R5543	1-218-867-11	METAL CHIP	6.8K 0.5% 1/10W	X3300	1-781-946-21	VIBRATOR, CRYSTAL	
R0095	1-216-821-11	METAL CHIP	1K 5% 1/10W	R3412	1-216-864-11	SHORT CHIP	0	R5544	1-216-830-11	METAL CHIP	5.6K 5% 1/10W	X3400	1-795-058-21	VIBRATOR, CERAMIC	
R0099	1-216-833-11	METAL CHIP	10K 5% 1/10W	R3413	1-216-864-11	SHORT CHIP	0	R5545	1-218-895-11	METAL CHIP	100K 0.5% 1/10W				* A-1302-964-A D Board Complete KV-28FQ86
R0102	1-216-864-11	SHORT CHIP	0	R3414	1-216-809-11	METAL CHIP	100 5% 1/10W	R5547	1-218-895-11	METAL CHIP	100K 0.5% 1/10W				* A-1302-971-A D Board Complete KV-32FQ86
R0108	1-216-864-11	SHORT CHIP	0	R3415	1-218-855-11	METAL CHIP	2.2K 0.5% 1/10W	R5548	1-218-887-11	METAL CHIP	47K 0.5% 1/10W				
R0137	1-216-839-11	METAL CHIP	33K 5% 1/10W	R3416	1-218-837-11	METAL CHIP	390 0.5% 1/10W	R5549	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				
R3100	1-216-864-11	SHORT CHIP	0	R3417	1-218-855-11	METAL CHIP	2.2K 0.5% 1/10W	R5550	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				
R3103	1-216-864-11	SHORT CHIP	0	R3419	1-216-817-11	METAL CHIP	470 5% 1/10W	R5551	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				4-382-854-01 SCREW (M3X8), P, SW (+)
R3104	1-216-864-11	SHORT CHIP	0	R3421	1-216-817-11	METAL CHIP	470 5% 1/10W	R5552	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				
R3106	1-216-864-11	SHORT CHIP	0	R3422	1-216-809-11	METAL CHIP	100 5% 1/10W	R5555	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				
R3108	1-216-864-11	SHORT CHIP	0	R3423	1-216-817-11	METAL CHIP	470 5% 1/10W	R5556	1-216-829-11	METAL CHIP	4.7K 5% 1/10W				
R3109	1-216-809-11	METAL CHIP	100 5% 1/10W	R3427	1-216-820-11	METAL CHIP	820 5% 1/10W	R5557	1-216-809-11	METAL CHIP	100 5% 1/10W	C8100	1-136-497-81	FILM	0.1UF 5.00% 50V
R3110	1-216-809-11	METAL CHIP	100 5% 1/10W	R3428	1-216-820-11	METAL CHIP	820 5% 1/10W	R5558	1-216-809-11	METAL CHIP	100 5% 1/10W	C8101	1-136-497-81	FILM	0.1UF 5.00% 50V
R3112	1-216-809-11	METAL CHIP	100 5% 1/10W	R3429	1-216-820-11	METAL CHIP	820 5% 1/10W	R5559	1-216-864-11	SHORT CHIP	0	C8102	1-136-497-81	FILM	0.1UF 5.00% 50V
R3113	1-216-809-11	METAL CHIP	100 5% 1/10W	R3434	1-216-864-11	SHORT CHIP	0	R5560	1-216-833-11	METAL CHIP	10K 5% 1/10W	C8103	1-115-416-11	CERAMIC CHIP	0.001UF 5.00% 25V
R3114	1-216-864-11	SHORT CHIP	0	R3436	1-216-864-11	SHORT CHIP	0	R5561	1-216-821-11	METAL CHIP	1K 5% 1/10W	C8104	1-115-416-11	CERAMIC CHIP	0.001UF 5.00% 25V
R3115	1-216-864-11	SHORT CHIP	0	R3437	1-216-864-11	SHORT CHIP	0	R5566	1-216-833-11	METAL CHIP	10K 5% 1/10W	C8105	1-126-947-11	ELECT	47UF 20.00% 35V
R3117	1-216-864-11	SHORT CHIP	0	R3438	1-216-864-11	SHORT CHIP	0	R5569	1-216-864-11	SHORT CHIP	0	C8106	1-164-315-11	CERAMIC CHIP	470PF 5.00% 50V
R3165	1-216-845-11	METAL CHIP	100K 5% 1/10W	R3443	1-218-847-11	METAL CHIP	1K 0.5% 1/10W	R5570	1-216-864-11	SHORT CHIP	0	C8107	1-218-869-11	METAL CHIP	8.2K 0.5% 1/10W
R3220															

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
L8569	1-406-989-21	INDUCTOR	10MH	R8105	1-216-821-11	METAL CHIP	1K 5% 1/10W
L8576	1-406-989-21	INDUCTOR	10MH	R8106	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
		< TRANSISTOR >		R8107	1-218-857-11	METAL CHIP	2.7K 0.5% 1/10W
				R8108	1-218-857-11	METAL CHIP	2.7K 0.5% 1/10W
				R8109	1-218-879-11	METAL CHIP	22K 0.5% 1/10W
Q8100	8-729-010-29	TRANSISTOR MSD601-RST1		R8110	1-218-879-11	METAL CHIP	22K 0.5% 1/10W
Q8101	8-729-010-29	TRANSISTOR MSD601-RST1		R8111	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8102	8-729-010-29	TRANSISTOR MSD601-RST1		R8112	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8103	8-729-010-29	TRANSISTOR MSD601-RST1		R8113	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8104	8-729-010-29	TRANSISTOR MSD601-RST1		R8114	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8105	8-729-010-29	TRANSISTOR MSD601-RST1		R8115	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q8106	8-729-010-29	TRANSISTOR MSD601-RST1		R8116	1-216-845-11	METAL CHIP	100K 5% 1/10W
Q8107	8-729-010-29	TRANSISTOR MSD601-RST1		R8117	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8108	8-729-010-05	TRANSISTOR MSB709-RT1		R8118	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8109	8-729-048-47	TRANSISTOR 2SC2688(5)-LK		R8119	1-216-833-11	METAL CHIP	10K 5% 1/10W
Q8110	8-729-010-05	TRANSISTOR MSB709-RT1		R8120	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8111	8-729-048-47	TRANSISTOR 2SC2688(5)-LK		R8121	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8112	8-729-010-29	TRANSISTOR MSD601-RST1		R8122	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8113	8-729-010-29	TRANSISTOR MSD601-RST1		R8123	1-216-841-11	METAL CHIP	47K 5% 1/10W
Q8114	6-550-827-01	TRANSISTOR ST2310DHI(041Y)		R8124	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q8115	8-729-010-05	TRANSISTOR MSB709-RT1		R8125	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8116	6-550-827-01	TRANSISTOR ST2310DHI(041Y)		R8126	1-216-815-11	METAL CHIP	330 5% 1/10W
Q8117	8-729-050-48	TRANSISTOR IRF614-005		R8128	1-218-887-11	METAL CHIP	47K 0.5% 1/10W
Q8118	8-729-010-29	TRANSISTOR MSD601-RST1		R8129	1-218-887-11	METAL CHIP	47K 0.5% 1/10W
Q8119	8-729-010-05	TRANSISTOR MSB709-RT1		R8130	1-218-908-91	METAL CHIP	360K 0.5% 1/10W
Q8120	8-729-010-05	TRANSISTOR MSB709-RT1		R8131	1-216-815-11	METAL CHIP	330 5% 1/10W
Q8121	6-550-721-01	TRANSISTOR 2SK2679(LBS2SONY.Q)		R8132	1-216-815-11	METAL CHIP	330 5% 1/10W
Q8122	8-729-010-05	TRANSISTOR MSB709-RT1		R8133	1-216-815-11	METAL CHIP	330 5% 1/10W
Q8123	8-729-010-05	TRANSISTOR MSB709-RT1		R8135	1-243-584-21	METAL OXIDE	4.7K 5% 2W
Q8125	8-729-010-29	TRANSISTOR MSD601-RST1		R8136	1-218-887-11	METAL CHIP	47K 0.5% 1/10W
Q8126	8-729-010-05	TRANSISTOR MSB709-RT1		R8137	1-218-887-11	METAL CHIP	47K 0.5% 1/10W
Q8127	8-729-010-05	TRANSISTOR MSB709-RT1		R8138	1-218-887-11	METAL CHIP	47K 0.5% 1/10W
Q8128	8-729-010-29	TRANSISTOR MSD601-RST1		R8139	1-218-887-11	METAL CHIP	47K 0.5% 1/10W
Q8132	8-729-421-19	TRANSISTOR UN2213		R8140	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8201	8-729-010-29	TRANSISTOR MSD601-RST1		R8141	1-243-584-21	METAL OXIDE	4.7K 5% 2W
Q8202	8-729-010-29	TRANSISTOR MSD601-RST1		R8142	1-260-340-11	CARBON	10K 5% 1/2W
Q8203	8-729-010-29	TRANSISTOR MSD601-RST1		R8143	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
Q8455	8-729-010-29	TRANSISTOR MSD601-RST1		R8145	1-215-895-21	METAL OXIDE	3.3K 5% 2W
Q8508	8-729-010-29	TRANSISTOR MSD601-RST1		R8146	1-260-340-11	CARBON	10K 5% 1/2W
Q8509	8-729-010-29	TRANSISTOR MSD601-RST1		R8147	1-243-949-21	METAL OXIDE	0.47 5% 2W
Q8510	8-729-140-93	TRANSISTOR 2SB733-34		R8148	1-215-880-71	METAL OXIDE	10 5% 2W
Q8512	8-729-053-33	TRANSISTOR IRF614-037		R8149	1-216-821-11	METAL CHIP	1K 5% 1/10W
	< RESISTOR >			R8150	1-216-821-11	METAL CHIP	1K 5% 1/10W
				R8151	1-216-361-00	METAL OXIDE	0.22 5% 2W
JR8460	1-216-864-11	SHORT CHIP	0	R8152	1-215-880-71	METAL OXIDE	10 5% 2W
R8100	1-216-813-11	METAL CHIP	220 5% 1/10W	R8153	1-247-807-31	CARBON	100 5% 1/4W
R8101	1-216-813-11	METAL CHIP	220 5% 1/10W	R8154	1-216-845-11	METAL CHIP	100K 5% 1/10W
R8102	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R8155	1-216-853-11	METAL CHIP	470K 5% 1/10W
R8103	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R8157	1-215-493-00	METAL	1M 1% 1/4W
R8104	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R8159	1-216-864-11	SHORT CHIP	0

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK						
R8160	1-216-864-11	SHORT CHIP	0	R8565	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W						
R8161	1-218-869-11	METAL CHIP	8.2K 0.5% 1/10W	R8566	1-216-821-11	METAL CHIP	1K 5% 1/10W						
R8162	1-216-821-11	METAL CHIP	1K 5% 1/10W	R8567	1-216-833-11	METAL CHIP	10K 5% 1/10W						
R8163	1-216-833-11	METAL CHIP	10K 5% 1/10W	R8568	1-216-813-11	METAL CHIP	220 5% 1/10W						
R8165	1-218-889-11	METAL CHIP	56K 0.5% 1/10W	R8571	1-243-555-21	METAL OXIDE	18 5% 2W						
R8166	1-247-807-31	CARBON	100 5% 1/4W	R8572	1-215-882-21	METAL OXIDE	22 5% 2W						
R8167	1-215-493-00	METAL	1M 1% 1/4W	R8573	1-216-821-11	METAL CHIP	1K 5% 1/10W						
R8168	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R8574	1-216-825-11	METAL CHIP	2.2K 5% 1/10W						
R8169	1-218-895-11	METAL CHIP	100K 0.5% 1/10W	R8575	1-216-817-11	METAL CHIP	470 5% 1/10W						
R8170	1-216-815-11	METAL CHIP	330 5% 1/10W	R8804	1-249-408-11	CARBON	180 5% 1/4W						
R8171	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R8805	1-249-408-11	CARBON	180 5% 1/4W						
R8174	1-216-837-11	METAL CHIP	22K 5% 1/10W	R8806	1-249-411-11	CARBON	330 5% 1/4W						
R8178	1-218-867-11	METAL CHIP	6.8K 0.5% 1/10W	R8807	1-249-411-11	CARBON	330 5% 1/4W						
R8179	1-216-864-11	SHORT CHIP	0	R8868	1-218-869-11	METAL CHIP	8.2K 0.5% 1/10W						
R8180	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R8885	1-218-895-11	METAL CHIP	100K 0.5% 1/10W						
R8181	1-249-409-11	CARBON	220 5% 1/4W	R8886	1-218-875-11	METAL CHIP	15K 0.5% 1/10W						
R8182	1-216-841-11	METAL CHIP	47K 5% 1/10W	< TRANSFORMER >									
R8183	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	T8100	1-433-489-31	TRANSFORMER, FERRITE (HDT)	C2904	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V			
R8190	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	T8101	1-433-489-31	TRANSFORMER, FERRITE (HDT)	C2906	1-126-960-11	ELECT 1UF	20.00% 50V			
R8191	1-243-622-21	METAL OXIDE	22K 5% 3W	T8202	1-437-614-11	TRANSFORMER, HORIZONTAL OUTPUT	C2907	1-126-960-11	ELECT 1UF	20.00% 50V			
D Board Variant Parts KV-28FQ86													
< CAPACITOR >				C2931	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V						
R8196	1-249-377-11	CARBON	0.47 5% 1/4W	< CONNECTOR >									
R8201	1-260-123-11	CARBON	100K 5% 1/2W	CN2900	1-779-947-11	TERMINAL BLOCK, S	C7312	1-164-156-11	CERAMIC CHIP 0.1UF	25V			
R8203	1-216-864-11	SHORT CHIP	0	CN2911	* 1-564-511-11	PLUG, CONNECTOR 8P	C7313	1-162-921-11	CERAMIC CHIP 33PF	5.00% 50V			
R8204	1-202-972-61	FUSIBLE	1 5% 1/4W	CN2912	* 1-564-510-11	PLUG, CONNECTOR 7P	C7316	1-115-416-11	CERAMIC CHIP 0.001UF	5.00% 25V			
R8205	1-218-871-11	METAL CHIP	10K 0.5% 1/10W	< DIODE >									
R8206	1-249-443-11	CARBON	0.47 5% 1/4W	D0901	8-719-109-89	DIODE RD5.6ESB2	C7322	1-164-156-11	CERAMIC CHIP 0.1UF	25V			
R8207	1-249-443-11	CARBON	0.47 5% 1/4W	D0908	8-719-109-89	DIODE RD5.6ESB2	C7323	1-162-921-11	CERAMIC CHIP 33PF	5.00% 50V			
R8208	1-216-838-11	METAL CHIP	27K 5% 1/10W	< CONNECTOR >									
R8209	1-216-833-11	METAL CHIP	10K 5% 1/10W	C8130	1-164-230-11	CERAMIC CHIP 220PF	5.00% 50V						
R8210	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	C8140	1-117-641-11	FILM 7500PF	3.00% 1.2KV						
< CONNECTOR >				C8145	1-117-667-11	FILM 0.47UF	5.00% 250V						
R8211	1-216-833-11	METAL CHIP	10K 5% 1/10W	C8146	1-117-660-21	FILM 0.12UF	5.00% 250V						
R8212	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	< SOCKET >									
R8215	1-218-887-11	METAL CHIP	47K 0.5% 1/10W	CN8214	* 1-816-976-11	PLUG, CONNECTOR 5P	J2901	1-817-763-11	JACK	C7332	1-126-947-11	ELECT 47UF	20.00% 35V
R8216	1-218-887-11	METAL CHIP	47K 0.5% 1/10W	CN8215	* 1-816-977-51	PLUG, CONNECTOR 6P	< RESISTOR >						
R8217	1-216-833-11	METAL CHIP	10K 5% 1/10W	< RESISTOR >									
R8218	1-249-443-11	CARBON	0.47 5% 1/4W	R8127	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W						
R8219	1-249-443-11	CARBON	0.47 5% 1/4W	R8144	1-243-584-21	METAL OXIDE	4.7K 5% 2W						
R8220	1-216-821-11	METAL CHIP	1K 5% 1/10W	R8156	1-215-485-00	METAL	470K 1% 1/4W						
R8456	1-218-889-11	METAL CHIP	56K 0.5% 1/10W	R8176	1-218-867-11	METAL CHIP	6.8K 0.5% 1/10W						
R8459	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R8177	1-216-830-11	METAL CHIP	5.6K 5% 1/10W						
R8538	1-216-849-11	METAL CHIP	220K 5% 1/10W	R8222	1-216-347-11	METAL OXIDE	0.68 5% 1W						
R8539	1-216-845-11	METAL CHIP	100K 5% 1/10W	R8570	1-243-555-21	METAL OXIDE	18 5% 2W						
D Board Variant Parts KV-28FQ86				< CAPACITOR >									
R8543	1-216-833-11	METAL CHIP	10K 5% 1/10W	C8130	NOT FITTED		R0901	1-216-864-11	SHORT CHIP	0			
R8544	1-216-841-11	METAL CHIP	47K 5% 1/10W	C8140	1-117-836-11	FILM 6800PF	3.00% 1.5KV						
R8545	1-216-821-11	METAL CHIP	1K 5% 1/10W	C8145	1-115-519-11	FILM 0.56UF	5.00% 250V						
R8550	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W	C8146	1-107-846-11	FILM 0.1UF	5.00% 400V						
R8552	1-218-863-11	METAL CHIP	4.7K 0.5% 1/10W	< CONNECTOR >									
< CONNECTOR >				R2909	1-216-853-11	METAL CHIP	470K 5% 1/10W						
< RESISTOR >				R2910	1-216-853-11	METAL CHIP	470K 5% 1/10W						
< RESISTOR >				R2917	1-216-821-11	METAL CHIP	1K 5% 1/10W						
< RESISTOR >				R2918	1-216-821-11	METAL CHIP	1K 5% 1/10W						
< CONNECTOR >				< DIODE >									
< DIODE >				R0902	1-216-829-11	METAL CHIP	4.7K 5% 1/10W						
< DIODE >				R0911	1-216-829-11	METAL CHIP	4.7K 5% 1/10W						
< DIODE >				R0912	1-216-864-11	SHORT CHIP	0						
< DIODE >				R0913	1-216-833-11	METAL CHIP	10K 5% 1/10W						
< DIODE >				R0914	1-216-833-11	METAL CHIP	10K 5% 1/10W						
< DIODE >				R2901	1-249-406-11	CARBON	120 5% 1/4W						
< DIODE >				R2902	1-249-406-11	CARBON	120 5% 1/4W						
< DIODE >				R2903	1-249-406-11	CARBON	120 5% 1/4W						
< DIODE >				R2904	1-249-406-11	CARBON	120 5% 1/4W						

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

C F1

Note : The components identified by shading and marked Δ are critical for safety. Replace only with the part numbers specified in the parts list.

F1 J

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
D7312	8-719-991-33	DIODE 1SS133T-77		R7308	1-202-557-00	SOLID	220 20% 1/2W
D7313	8-719-901-83	DIODE 1SS83		R7310	1-216-821-11	METAL CHIP	1K 5% 1/10W
D7314	8-719-083-83	DIODE UDZS-TE17-15B		R7311	1-216-813-11	METAL CHIP	220 5% 1/10W
D7320	8-719-901-83	DIODE 1SS83		R7312	1-216-814-11	METAL CHIP	270 5% 1/10W
D7321	8-719-901-83	DIODE 1SS83		R7313	1-216-813-11	METAL CHIP	220 5% 1/10W
D7322	8-719-991-33	DIODE 1SS133T-77		R7314	1-216-813-11	METAL CHIP	220 5% 1/10W
D7323	8-719-901-83	DIODE 1SS83		R7316	1-216-864-11	SHORT CHIP	0
D7324	8-719-083-83	DIODE UDZS-TE17-15B		R7317	1-247-807-31	CARBON	100 5% 1/4W
D7330	8-719-109-68	DIODE RD3.6ESB1		R7318	1-202-557-00	SOLID	220 20% 1/2W
D7331	8-719-901-83	DIODE 1SS83		R7320	1-216-821-11	METAL CHIP	1K 5% 1/10W
		< IC >		R7321	1-216-813-11	METAL CHIP	220 5% 1/10W
				R7322	1-216-814-11	METAL CHIP	270 5% 1/10W
IC7300	6-704-806-01	IC TDA6118JF		R7323	1-216-813-11	METAL CHIP	220 5% 1/10W
IC7310	6-704-806-01	IC TDA6118JF		R7324	1-216-813-11	METAL CHIP	220 5% 1/10W
IC7320	6-704-806-01	IC TDA6118JF		R7326	1-216-864-11	SHORT CHIP	0
		< SOCKET >		R7327	1-247-807-31	CARBON	100 5% 1/4W
				R7328	1-202-557-00	SOLID	220 20% 1/2W
J7330	Δ 1-451-544-11	SOCKET, CRT		R7330	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
		< COIL >		R7331	1-247-903-00	CARBON	1M 5% 1/4W
				R7333	1-249-417-11	CARBON	1K 5% 1/4W
L7330	1-414-928-21	INDUCTOR	1UH	R7334	1-249-417-11	CARBON	1K 5% 1/4W
L7331	1-414-928-21	INDUCTOR	1UH	R7335	1-247-735-11	CARBON	47 5% 1/2W
		< PROTECTOR MODULE >		R7336	1-202-549-00	SOLID	100 20% 1/2W
				R7337	1-202-549-00	SOLID	100 20% 1/2W
				R7340	1-216-826-11	METAL CHIP	2.7K 5% 1/10W
PS7332	Δ 1-532-637-00	IC LINK	1A 50V	R7350	1-216-826-11	METAL CHIP	2.7K 5% 1/10W
		< TRANSISTOR >		R7360	1-216-826-11	METAL CHIP	2.7K 5% 1/10W
				R7361	1-216-821-11	METAL CHIP	1K 5% 1/10W
Q7300	8-729-025-25	TRANSISTOR BF550					< RESISTOR VARIABLE >
Q7301	8-729-010-29	TRANSISTOR MSD601-RST1		RV7330	1-241-656-11	RES, ADJ, METAL FILM	110M
Q7302	8-729-200-17	TRANSISTOR 2SA1091-0					* A-1405-611-A F1 Board Complete
Q7310	8-729-025-25	TRANSISTOR BF550					4-206-220-01 HOLDER, LED
Q7311	8-729-010-29	TRANSISTOR MSD601-RST1					< CAPACITOR >
Q7312	8-729-200-17	TRANSISTOR 2SA1091-0					C0982 1-104-665-11 ELECT 100UF 20.00% 25V
Q7320	8-729-025-25	TRANSISTOR BF550					C0983 1-102-114-00 CERAMIC 470PF 10.00% 50V
Q7321	8-729-010-29	TRANSISTOR MSD601-RST1					C0984 1-102-129-00 CERAMIC 0.01UF 10.00% 50V
Q7322	8-729-200-17	TRANSISTOR 2SA1091-0					C6400 1-113-924-11 CERAMIC 0.0047UF 20.00% 250V
Q7330	8-729-010-05	TRANSISTOR MSB709-RT1					< RESISTOR >
							CN0981 * 1-564-507-11 PLUG, CONNECTOR 4P
JR7303	1-216-864-11	SHORT CHIP	0				CN6400 * 1-580-843-11 PIN, CONNECTOR (POWER)
JR7313	1-216-864-11	SHORT CHIP	0				CN6401 * 1-691-291-11 PIN, CONNECTOR (PC BOARD) 5P
JR7323	1-216-864-11	SHORT CHIP	0				CN6403 1-695-915-11 TAB (CONTACT)
							< DIODE >
R7300	1-216-821-11	METAL CHIP	1K 5% 1/10W				C2632 1-164-227-11 CERAMIC CHIP 0.022UF 10.00% 25V
R7301	1-216-813-11	METAL CHIP	220 5% 1/10W				C2633 1-162-964-11 CERAMIC CHIP 0.001UF 10.00% 50V
R7302	1-216-814-11	METAL CHIP	270 5% 1/10W				C2634 1-164-227-11 CERAMIC CHIP 0.022UF 10.00% 25V
R7303	1-216-813-11	METAL CHIP	220 5% 1/10W				C2635 1-162-964-11 CERAMIC CHIP 0.001UF 10.00% 50V
R7304	1-216-813-11	METAL CHIP	220 5% 1/10W				C2636 1-165-908-11 CERAMIC CHIP 1UF 10% 10V
							C2637 1-165-908-11 CERAMIC CHIP 1UF 10% 10V
R7306	1-216-864-11	SHORT CHIP	0	D0981	8-719-109-89	DIODE RD5.6ESB2	
R7307	1-247-807-31	CARBON	100 5% 1/4W	D0983	8-719-082-12	DIODE TLHK5190	

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
		< FUSE >		C2655	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
F6400	Δ 1-576-232-12	FUSE	5A 250V	C2656	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
FH6400	Δ 1-533-725-11	FUSE HOLDER	0A 0V	C2657	1-162-923-11	CERAMIC CHIP 47PF	5.00% 50V
		< IC >		C2658	1-164-156-11	CERAMIC CHIP 0.1UF	25V
IC0981	6-704-532-01	IC RPM7240-H5		C2659	1-126-964-11	ELECT 10UF	20.00% 50V
		< RESISTOR >		C2660	1-126-947-11	ELECT 47UF	20.00% 35V
R0982	1-247-807-31	CARBON	100 5% 1/4W	C3608	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
R6400	Δ 1-202-719-00	SOLID	1M 10% 1/2W	C3609	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
		< SWITCH >		C3610	1-126-947-11	ELECT 47UF	20.00% 35V
S6400	Δ 1-571-433-21	SWITCH, PUSH (AC POWER)		C3616	1-164-156-11	CERAMIC CHIP 0.1UF	25V
		< VARISTOR >		C3622	1-164-156-11	CERAMIC CHIP 0.1UF	25V
		VD6400	Δ 1-804-995-11 VARISTOR	C3623	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
		* A-1405-623-A J Board Complete		C3624	1-164-156-11	CERAMIC CHIP 0.1UF	25V
				C3625	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
				C3626	1-164-156-11	CERAMIC CHIP 0.1UF	25V
		< CAPACITOR >		C3627	1-126-964-11	ELECT 10UF	20.00% 50V
				C3631	1-107-826-11	CERAMIC CHIP 0.1UF	10.00% 16V
				C2604	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
				C2605	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
				C2606	1-164-227-11	CERAMIC CHIP 0.022UF	10.00% 25V
				C2607	1-162-964-11	CERAMIC CHIP 0.001UF	10.00% 50V
				C2608	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
				C2609	1-165-908-11	CERAMIC CHIP 1UF	10% 10V
				C2610	1-126-947-11	ELECT 47UF	20.00% 35V
				C2611	1-126-947-11	ELECT 47UF	20.00% 35V
				C2612	1-125-837-91	CERAMIC CHIP 1UF	10% 6.3V
				C2613	1-125-837-91	CERAMIC CHIP 1UF	10% 6.3V
				C2614	1-164-156-11	CERAMIC CHIP 0.1UF	25V
				C2615	1-164-156-11	CERAMIC CHIP 0.1UF	25V
		</td					

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK	
D2606	8-719-069-60	DIODE UDVZSTE-179.1B				< RESISTOR >		R2644	1-216-853-11	METAL CHIP	470K 5%	1/10W	R3655	1-216-837-11	METAL CHIP	22K 5% 1/10W
D2607	8-719-069-60	DIODE UDVZSTE-179.1B		JR2616	1-216-864-11	SHORT CHIP	0	R2645	1-216-853-11	METAL CHIP	470K 5%	1/10W	R3656	1-216-821-11	METAL CHIP	1K 5% 1/10W
D2608	8-719-069-60	DIODE UDVZSTE-179.1B		JR2617	1-216-864-11	SHORT CHIP	0	R2646	1-216-853-11	METAL CHIP	470K 5%	1/10W	R3657	1-216-841-11	METAL CHIP	47K 5% 1/10W
D2609	8-719-069-60	DIODE UDVZSTE-179.1B		JR2618	1-216-864-11	SHORT CHIP	0	R2647	1-216-853-11	METAL CHIP	470K 5%	1/10W	R3658	1-216-837-11	METAL CHIP	22K 5% 1/10W
D2610	8-719-069-60	DIODE UDVZSTE-179.1B		JR2628	1-216-864-11	SHORT CHIP	0	R2648	1-216-821-11	METAL CHIP	1K 5%	1/10W	R3659	1-216-821-11	METAL CHIP	1K 5% 1/10W
D2611	8-719-069-60	DIODE UDVZSTE-179.1B		JR3611	1-216-864-11	SHORT CHIP	0	R2649	1-216-837-11	METAL CHIP	22K 5%	1/10W	R3660	1-216-841-11	METAL CHIP	47K 5% 1/10W
D3602	8-719-069-60	DIODE UDVZSTE-179.1B		R0800	1-216-809-11	METAL CHIP	100 5% 1/10W	R2650	1-216-837-11	METAL CHIP	22K 5%	1/10W	R3661	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
D3606	8-719-069-60	DIODE UDVZSTE-179.1B		R0801	1-216-809-11	METAL CHIP	100 5% 1/10W	R3600	1-216-022-00	RES-CHIP	75 5%	1/10W	R3662	1-216-827-11	METAL CHIP	3.3K 5% 1/10W
D3614	8-719-083-63	DIODE UDVZSTE-1713B		R0802	1-216-025-11	RES-CHIP	100 5% 1/10W	R3601	1-216-022-00	RES-CHIP	75 5%	1/10W	R3663	1-216-805-11	METAL CHIP	47 5% 1/10W
D3615	8-719-069-60	DIODE UDVZSTE-179.1B		R2600	1-216-815-11	METAL CHIP	330 5% 1/10W	R3602	1-216-022-00	RES-CHIP	75 5%	1/10W			* A-1405-620-A VM Board Complete	
D3616	8-719-069-60	DIODE UDVZSTE-179.1B		R2601	1-216-049-11	RES-CHIP	1K 5% 1/10W	R3603	1-216-022-00	RES-CHIP	75 5%	1/10W				4-382-854-01 SCREW (M3X8), P, SW (+)
D3617	8-719-069-60	DIODE UDVZSTE-179.1B		R2602	1-216-815-11	METAL CHIP	330 5% 1/10W	R3604	1-216-022-00	RES-CHIP	75 5%	1/10W				< CAPACITOR >
D3621	8-719-083-63	DIODE UDVZSTE-1713B		R2603	1-216-049-11	RES-CHIP	1K 5% 1/10W	R3605	1-216-025-11	RES-CHIP	100 5%	1/10W	C9401	1-126-947-11	ELECT	47UF 20.00% 35V
D3622	8-719-069-55	DIODE UDVZSTE-175.6B		R2604	1-216-813-11	METAL CHIP	220 5% 1/10W	R3607	1-216-025-11	RES-CHIP	100 5%	1/10W	C9402	1-164-156-11	CERAMIC CHIP	0.1UF 25V
D3623	8-719-069-60	DIODE UDVZSTE-179.1B		R2605	1-216-864-11	SHORT CHIP	0	R3608	1-216-025-11	RES-CHIP	100 5%	1/10W	C9403	1-107-826-11	CERAMIC CHIP	0.1UF 10.00% 16V
D3624	8-719-069-60	DIODE UDVZSTE-179.1B		R2606	1-216-813-11	METAL CHIP	220 5% 1/10W	R3609	1-216-025-11	RES-CHIP	100 5%	1/10W	C9404	1-107-636-11	ELECT	10UF 20.00% 160V
D3626	8-719-069-60	DIODE UDVZSTE-179.1B		R2607	1-216-864-11	SHORT CHIP	0	R3610	1-216-025-11	RES-CHIP	100 5%	1/10W	C9406	1-161-830-00	CERAMIC	0.0047UF 500V
D3627	8-719-083-63	DIODE UDVZSTE-1713B		R2608	1-216-853-11	METAL CHIP	470K 5% 1/10W	R3611	1-216-022-00	RES-CHIP	75 5%	1/10W	C9407	1-164-156-11	CERAMIC CHIP	0.1UF 25V
D3628	8-719-083-63	DIODE UDVZSTE-1713B		R2609	1-216-853-11	METAL CHIP	470K 5% 1/10W	R3612	1-216-025-11	RES-CHIP	100 5%	1/10W	C9408	1-126-964-11	ELECT	10UF 20.00% 50V
D3629	8-719-069-60	DIODE UDVZSTE-179.1B		R2610	1-216-853-11	METAL CHIP	470K 5% 1/10W	R3613	1-216-022-00	RES-CHIP	75 5%	1/10W	C9409	1-107-636-11	ELECT	10UF 20.00% 160V
D3630	8-719-069-60	DIODE UDVZSTE-179.1B		R2611	1-216-853-11	METAL CHIP	470K 5% 1/10W	R3614	1-216-025-11	RES-CHIP	100 5%	1/10W	C9410	1-137-528-11	MYLAR	0.1UF 10.00% 250V
D3631	8-719-069-55	DIODE UDVZSTE-175.6B		R2612	1-216-813-11	METAL CHIP	220 5% 1/10W	R3615	1-216-022-00	RES-CHIP	75 5%	1/10W	C9411	1-107-826-11	CERAMIC CHIP	0.1UF 10.00% 16V
D3632	8-719-069-60	DIODE UDVZSTE-179.1B		R2613	1-216-813-11	METAL CHIP	220 5% 1/10W	R3616	1-216-022-00	RES-CHIP	75 5%	1/10W	C9412	1-137-528-11	MYLAR	0.1UF 10.00% 250V
D3633	8-719-069-60	DIODE UDVZSTE-179.1B		R2614	1-216-864-11	SHORT CHIP	0	R3617	1-216-022-00	RES-CHIP	75 5%	1/10W	C9413	1-107-826-11	CERAMIC CHIP	0.1UF 10.00% 16V
D3634	8-719-069-60	DIODE UDVZSTE-179.1B		R2615	1-216-864-11	SHORT CHIP	0	R3618	1-216-022-00	RES-CHIP	75 5%	1/10W	C9414	1-117-450-11	MYLAR	0.47UF 10.00% 250V
D3635	8-719-069-60	DIODE UDVZSTE-179.1B		R2616	1-216-864-11	SHORT CHIP	0	R3619	1-216-025-11	RES-CHIP	100 5%	1/10W				< CONNECTOR >
		< FERRITE BEAD >		R2617	1-216-821-11	METAL CHIP	1K 5% 1/10W	R3622	1-216-025-11	RES-CHIP	100 5%	1/10W				
		< IC >		R2618	1-216-864-11	SHORT CHIP	0	R3623	1-216-025-11	RES-CHIP	100 5%	1/10W	CN9401	* 1-564-510-11	PLUG, CONNECTOR	7P
FB3611	1-414-760-21	FERRITE	0UH	R2619	1-216-821-11	METAL CHIP	1K 5% 1/10W	R3624	1-216-022-00	RES-CHIP	75 5%	1/10W	CN9402	* 1-564-506-11	PLUG, CONNECTOR	3P
		< COIL >		R2620	1-216-837-11	METAL CHIP	22K 5% 1/10W	R3625	1-216-025-11	RES-CHIP	100 5%	1/10W	CN9403	* 1-770-723-11	CONNECTOR, BOARD TO BOARD	8P
IC3600	8-752-096-83	IC CXA2149AQ-TL		R2621	1-216-837-11	METAL CHIP	22K 5% 1/10W	R3626	1-216-022-00	RES-CHIP	75 5%	1/10W				< COIL >
		< TRANSISTOR >		R2622	1-216-837-11	METAL CHIP	22K 5% 1/10W	R3627	1-216-022-00	RES-CHIP	75 5%	1/10W	L9401	1-414-928-21	INDUCTOR	1UH
L2602	1-414-928-21	INDUCTOR	1UH	R2623	1-216-837-11	METAL CHIP	22K 5% 1/10W	R3628	1-216-022-00	RES-CHIP	75 5%	1/10W	L9402	1-414-928-21	INDUCTOR	1UH
L3611	1-414-928-21	INDUCTOR	1UH	R2624	1-216-815-11	METAL CHIP	330 5% 1/10W	R3629	1-216-022-00	RES-CHIP	75 5%	1/10W				< TRANSISTOR >
L3612	1-414-928-21	INDUCTOR	1UH	R2625	1-216-049-11	RES-CHIP	1K 5% 1/10W	R3630	1-216-025-11	RES-CHIP	100 5%	1/10W	Q9401	8-729-010-29	TRANSISTOR	MSD601-RST1
L3614	1-414-928-21	INDUCTOR	1UH	R2626	1-216-815-11	METAL CHIP	330 5% 1/10W	R3631	1-216-809-11	METAL CHIP	100 5%	1/10W	Q9402	8-729-010-29	TRANSISTOR	MSD601-RST1
		< TRANSISTOR >		R2627	1-216-049-11	RES-CHIP	1K 5% 1/10W	R3632	1-216-809-11	METAL CHIP	100 5%	1/10W	Q9403	8-729-010-29	TRANSISTOR	MSD601-RST1
Q260																

REF.NO.	PART.NO	DESCRIPTION	REMARK	REF.NO.	PART.NO	DESCRIPTION	REMARK
Q9412	8-729-045-04	TRANSISTOR 2SC5511					
Q9413	8-729-010-29	TRANSISTOR MSD601-RST1					
Q9414	8-729-010-05	TRANSISTOR MSE709-RT1					
< RESISTOR >							
R9401	1-249-381-11	CARBON	1 5% 1/4W				
R9402	1-216-820-11	METAL CHIP	820 5% 1/10W				
R9403	1-216-819-11	METAL CHIP	680 5% 1/10W				
R9404	1-216-834-11	METAL CHIP	12K 5% 1/10W				
R9405	1-216-839-11	METAL CHIP	33K 5% 1/10W				
R9406	1-216-805-11	METAL CHIP	47 5% 1/10W				
R9408	1-216-815-11	METAL CHIP	330 5% 1/10W				
R9409	1-216-805-11	METAL CHIP	47 5% 1/10W				
R9410	1-216-805-11	METAL CHIP	47 5% 1/10W				
R9411	1-249-393-11	CARBON	10 5% 1/4W				
R9412	1-249-393-11	CARBON	10 5% 1/4W				
R9413	1-249-393-11	CARBON	10 5% 1/4W				
R9414	1-249-393-11	CARBON	10 5% 1/4W				
R9415	1-249-393-11	CARBON	10 5% 1/4W				
R9416	1-249-393-11	CARBON	10 5% 1/4W				
R9417	1-249-393-11	CARBON	10 5% 1/4W				
R9418	1-249-393-11	CARBON	10 5% 1/4W				
R9419	1-216-839-11	METAL CHIP	33K 5% 1/10W				
R9420	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R9421	1-216-801-11	METAL CHIP	22 5% 1/10W				
R9422	1-216-801-11	METAL CHIP	22 5% 1/10W				
R9423	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R9424	1-216-839-11	METAL CHIP	33K 5% 1/10W				
R9425	1-243-572-21	METAL OXIDE	470 5% 2W				
R9426	1-216-839-11	METAL CHIP	33K 5% 1/10W				
R9427	1-216-839-11	METAL CHIP	33K 5% 1/10W				
R9429	1-216-821-11	METAL CHIP	1K 5% 1/10W				
R9430	1-216-809-11	METAL CHIP	100 5% 1/10W				
R9431	1-216-809-11	METAL CHIP	100 5% 1/10W				
R9432	1-216-817-11	METAL CHIP	470 5% 1/10W				
R9433	1-216-817-11	METAL CHIP	470 5% 1/10W				
ACCESSORIES AND PACKAGING MATERIALS							
		*4-094-270-02	CUSHION UPPER KV-32FQ86B/E/K/U				
		*4-094-271-02	CUSHION LOWER KV-32FQ86B/E/K/U				
		*4-087-594-01	INDIVIDUAL CARTON KV-32FQ86B/E/K/U				
		*4-103-183-01	INDIVIDUAL CARTON KV-28FQ86B/E				
		4-046-772-01	BAG PROTECTION KV-32FQ86B/E/K/U				
		4-029-168-01	BAG PROTECTION KV-28FQ86B/E				
		4-103-124-11	INSTRUCTION MANUAL(GERMAN/TURKISH/GREEK) KV-28/32FQ86E				
		4-103-124-21	INSTRUCTION MANUAL(ITALIAN) KV-28/32FQ86E				
		4-103-124-31	INSTRUCTION MANUAL(NORWEGIAN/PORTUGUESE/ SWEDISH/FINNISH/DANISH/SPANISH) KV-28/32FQ86E				
		4-103-124-41	INSTRUCTION MANUAL(GERMAN/ITALIAN/FRENCH/ DUTCH) KV-28/32FQ86B				
		4-103-124-51	INSTRUCTION MANUAL(ENGLISH) KV-32FQ86B				
		4-103-124-61	INSTRUCTION MANUAL(BULGARIAN/CZECH/ENGLISH/ HUNGARIAN/RUSSIAN/POLISH) KV-32FQ86K				
		4-103-124-71	INSTRUCTION MANUAL(ENGLISH) KV-32FQ86U				
REMOTE COMMANDER							
		1-478-639-11	REMOTE COMMANDER (RM-945)				

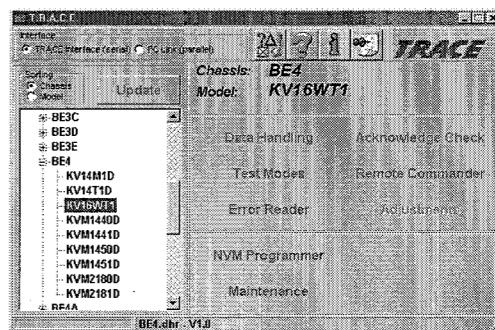
TRACE

A new TV Repair Assistance Tool that combines ease of use and powerful PC software tools to allow you to save valuable time during many TV repairs.



The TRACE interface connects to the PC's serial port. It provides connection to the TV's I²C bus and can be provided with an InfraRed transmitter (optional).

The interface is powered by a standard 9 V PP3 battery for portable use, and can also be powered by an external 9V/25mA DC power supply.



The TRACE software that is supplied with the interface allows you to:

- Read, restore and compare NVM contents via the I²C bus
- Acknowledge check of all I²C devices in the TV set
- Read Error Codes (emulation of the Error Reader tool)

With the optional IR Add-on kit, the following features can be added:

- Remote Commander emulation
- User programmable Functional Check through Infrared
- Fast and documented Test Mode setting of all Sony TV chassis

Additional features such as Adjustments and Troubleshooting are available in chassis-dependent software modules. Please contact your local Sony Service organisation for the latest information.

Note: For workshops already using the existing I²C Link parallel port interface (9-948-320-30), this software can be used as well, replacing the TV Data Handling software (9-948-340-50), but Error Reader and IR functions can only be accessed with the TRACE interface.

Partnumbers: TRACE Starter Kit (TRACE interface + software): 9-948-320-70

TRACE Software (for users of the I²C Link interface): 9-948-340-80

TRACE IR Add-on (IR interface + Remote Commander software): 9-948-320-80

PC requirements: IBM-compatible PC with operating system Windows95, Windows98, or WindowsNT*.

* WindowsNT only supported with TRACE interface

Sony Corporation
Sony UK
Service Promotions Dept.

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